Curriculum Vitae

Last Updated: 2023/02/16

PERSONAL DATA

Name: Brian E. Chapman, Ph.D.
Associate Professor of Health and Biomedical Informatics
Department of Medical Education
Faculty of Medicine, Dentistry and Health Sciences
University of Melbourne

Citizenship: United States

GitHub: https://github.com/chapmanbe

Website: https://chapmanbe.github.io/

EDUCATION

Years	Degree	Institution (Area of Study)
1990 — 1992	B.S.	University of Utah (Electrical Engineering) Salt Lake City, UT
1992 — 1994	M.S.	University of Wisconsin–Madison (Electrical Engineering) Madison, WI
1994 — 1998	Ph.D.	University of Utah (Medical Informatics) Salt Lake City, UT

PROFESSIONAL EXPERIENCE

Full-Time Positions

1990 — 1992	Undergraduate Research Assistant, University of Utah, Salt Lake City, UT
1992 — 1993	Research Assistant, University of Wisconsin–Madison, Madison, WI
1993 — 1994	Air Force Office of Scientific Research Fellow, University of Wisconsin–Madison, Madison, WI
1994 — 1998	Research Assistant, University of Utah, Salt Lake City, UT
1998 — 2000	Postdoctoral Fellow, University of Utah, Salt Lake City, UT
2000 — 2006	Research Assistant Professor, Department of Radiology, University of Pittsburgh, Pittsburgh, PA
2002 — 2010	Core Faculty, Biomedical Informatics Training Program, University of Pittsburgh, Pittsburgh, PA
2006 — 2010	Assistant Professor, Department of Biomedical Informatics, University of Pittsburgh, Pittsburgh, PA
2010 — 2013	Associate Professor, University of California, San Diego, La Jolla, CA
2013 — 2019	Research Associate Professor, Departments of Biomedical Informatics and Radiology, University of Utah

2020 — 2023	Associate Professor, Department of Medical Education, University of Melbourne
2023 — Present	Associate Professor, Computing and Information Systems, University of Melbourne

Editorial Experience

2007 — 2013	Editorial Board for International Journal of Medical Engineering and Informatics

Reviewer Experience

Reviewer for 2012 AMIA Clinical Research Summit

Reviewer for American Journal of Roentgenology

Reviewer for Annual Fall Meeting American Medical Informatics Association

Reviewer for BMC Neurology

Reviewer for Computer Methods and Programs in Biomedicine

Reviewer for Computers and Biomedical Research

Reviewer for IEEE Transactions on Medical Imaging

Reviewer for International Journal of Medical Informatics

Reviewer for International Society for Magnetic Resonance in Medicine

Reviewer for Journal of Biomedical Informatics

Reviewer for Journal of Magnetic Resonance Imaging

Reviewer for Medical Physics

Reviewer for Methods of Information in Medicine

Reviewer for BMC Medical Informatics and Decision Making

SCHOLASTIC HONORS

1990	Tau Beta Pi, University of Utah
1992	Phi Kappa Phi, University of Utah
1995	Best Student Presentation, Medical Imaging Research Laboratory, University of Utah
1996	Best Student Presentation, Medical Imaging Research Laboratory, University of Utah
2001	Best Poster Runner-up, SPIE Medical Imaging
2010 — 2011	Nominated as Distinguished Mentor, University of Pittsburgh
2017	Outstanding Educator of Health Sciences Graduate Students, University of Utah

2018	Elected Fellow of the Academy of Health Science Educators

ADMINISTRATIVE EXPERIENCE

Administrative Duties

2009 — 2010	Member, Strategic Planning Committee, Department of Biomedical Informatics, University of Pittsburgh
2010 — 2012	Associate graduate training program director, Division of Biomedical Informatics, University of California, San Diego
2016 — Present	Co-director, DeCART Summer School, University of Utah.
2017	Chair, Department of Biomedical Informatics Education Committee, University of Utah
2016 — 2018	Director, Data Science Working Group, Department of Biomedical Informatics, University of Utah

Professional Organization & Scientific Activities

2009 — Present	Member, Society for Industrial and Applied Mathematics, Activity Group on Life Sci-
2009 — Present	Member, Society for Industrial and Applied Mathematics, Activity Group on Imaging Science
2010 — Present	Member, American Medical Informatics Association, Biomedical Imaging Working
2011 — 20132013	Advisory Board Member, American Medical Informatics Association, Biomedical Imaging Working Group
2012	Program Committee Member, Institute of Electrical and Electronics Engineers, Conference in Health Informatics, Imaging, and Systems Biology
2013	Program Committee Member, Institute of Electrical and Electronics Engineers, International Conference on Healthcare Informatics
2013	Program Committee Member, American Medical Informatics Association, Summit on Clinical Research Informatics
2017-2018	Program Chair, AMIA 2018 Informatics Educator's Forum
2022-Present	Member, Digital Health Advisory Group, Royal Australian College of Physicians

Grant Review Committee/Study Section

2012	VA HSR&D Review Panel

Symposium/Meeting Chair/Coordinator

2011	Principal Organizer, iDASH Imaging Informatics Workshop, San Diego, CA
2012	Principal Organizer, Biomedical Data Sharing: Ethical, Legal, and Policy Perspectives, San Diego, CA
2012	Principal Organizer, iDASH Imaging Informatics Workshop, San Diego, CA

2013	Principle Organizer, Southern California Medical Text Analysis and Visualization Workshop, San Diego, CA
2014	Summit on Mathematical Modeling in Health Sciences, Co-organizer (with Fred Adler), University of Utah Health Sciences, Salt Lake City, UT, USA

COMMUNITY ACTIVITIES

1997 — 1998	Volunteer, Boy Scouts of America, Scout Master
1998 — 2000	Volunteer, Boy Scouts of America, Varsity Scout Coach
2001 — 2003	Volunteer, Boy Scouts of America, Cub Scout Den Master
2002 — 2004	Board of Directors, Observatory Hill, Inc.
2002 — 2003	Volunteer, Slaughterhouse Gallery & Studios, Exhibitor, Lawrenceville, PA
2002	Volunteer, Indiana University of Pennsylvania, Exhibitor, Southwestern Pennsylvania Society for the Arts
2002	Volunteer, Box Heart Gallery, Exhibitor, Pittsburgh, PA
2003	Volunteer, Picturesque Photography Gifts & Gallery, Exhibitor, Lawrenceville, PA
2005	Volunteer, City of Lawrenceville, Pennsylvania, Exhibitor, Art all Night, Lawrenceville, PA
2005 — 2010	Volunteer, Boys & Girls Clubs of America, Photography Instructor, Sarah Heinz House
2007	Volunteer, 709 Penn Gallery, Solo Exhibitor, Reflections, Rotations, Symmetries, Pittsburgh, PA
2013 — 2014	Advisory Council, City Academy Charter School, Parent representative to school advisory council overseeing state Land Trust funds, wellness and safety programs, etc. Salt Lake City, UT
2014 — 2015	Program Committee Member, Artificial Intelligence In Medicine Inc.
2014 — 2018	President, City Academy Charter School, Advisory Council. Responsible for running the school's advisory council, Salt Lake City, UT
2014 – 2018	Board of Trustees, City Academy Charter School, Salt Lake City, UT

UNIVERSITY COMMUNITY ACTIVITIES

2021 — 2022	Committee Member, MD Redesign Committee, Department of Medical Education, University of Melbourne
2021 — present	Academic Lead, Digital Health Education Revamp, Computing and Information Systems, University of Melbourne
2021—2024	Education Committee, Computing and Information Systems, University of Melbourne

SERVICE AT PREVIOUS INSTITUTIONS

Health Sciences Level

2014 — 2016	Committee Member, Center for Clinical Translational Science, Curriculum Committee for MSCI program
2014 — present	Member, Academy of Health Science Educators
2017 — 2018	Health Systems Science Workgroup to identify education collaboration opportunities among the "dry lab" graduate programs in the health sciences.

Department Level

1991 — 1992	Member, Electrical and Computer Engineering, Oak Ridge National Laboratory, Engineering Clinic
1994 — 1998	Student Representative, Radiology, Imaging Research Laboratory
1999	Student Representative, Radiology, Faculty Promotion and Retention Committee
2000 — Present	Consultant, Radiology, Provide statistical and evaluation services to Dr. Dennis Parker
2014 — 2015	Member, Population Health Sciences, Curriculum Committee. Develop curriculum for new Population Health Sciences department
2015 — 2019	Member, Biomedical Informatics, Professional Masters Degree Committee
2015 — 2019	Chair, Utah Center for Advanced Imaging Research, Research Education Committee. Responsible for coordinating educational efforts in UCAIR
2015 — 2019	Member, Radiology, Informatics and Information Technology Committee
2016 — 2019	Member, Biomedical Informatics, Education Committee
2017 – 2019	Member, Biomedical Informatics, Curriculum Committee
2017	Chair, Biomedical Informatics, Education Committee
2017	Member, Resident Selection Committee, Department of Radiology and Imaging Sciences

Programs, Centers & Institutes

2013 — 2019	Affiliate Faculty, Center for Quantitative Biology, I worked with the director, Fred Adler, to increase collaboration between the Center and the Health Sciences.
2001 — 2010	Member, University of Pittsburgh, Admissions Committee, Department of Biomedical Informatics
2001 — 2002	Member, University of Pittsburgh, Faculty Search Committee, Imaging Research Division, Department of Radiology
2003 — 2005	Member, University of Pittsburgh, Radiology Research Seminar (with Dev Chakroborty)
2006 — 2007	Member, University of Pittsburgh, Department of Biomedical Informatics Art Committee

2006 — 2010	Chair, University of Pittsburgh, Computing Interest Group, Department of Biomedical Informatics, Monthly presentation/discussion on computing related issues
2007 — 2008	Chair, University of Pittsburgh, Imaging Informatics Faculty Search Committee
2008 — 2010	Member, University of Pittsburgh, Curriculum Committee, Department of Biomedical Informatics
2009 — 2010	Member, University of Pittsburgh, Strategic Planning Committee, Department of Biomedical Informatics
2011 — 2012	Member, University of California, San Diego, Faculty Search Committee, Division of Biomedical Informatics
2011 — 2012	Associate Director, University of California, San Diego, SABER, Coordinated all aspects of the NLM funded graduate education program for biomedical informatics, Designed curriculum, Coordinated with three participating degree programs (Computer Science and Engineering, Bioinformatics and Systems Biology, and Clinical Research), Worked with admissions, research training, and curriculum committees
2011 — 2013	Member, University of California, San Diego, San Diego Biomedical Informatics Education & Research (SABER) Student Admissions Committee
2013	Consultant, University of California, San Diego Extension, Provide evaluation of Health Information Technology certificate program

CURRENT MEMBERSHIPS IN PROFESSIONAL SOCIETIES

Association for Computing Machines

Society for Industrial and Applied Mathematics

American Association for the Advancement of Science

FUNDING

Current Grants

Development of clinician-led digital tools to improve diagnosis and treatment in paediatric adolescent and young adult oncofertility patients throughout the ANZCO Clinical Trials Network
MRFF
Role: Co-investigator

Past Grants

09/30/2016 — 06/30-2019 (no cost continuation)

Curriculum in Biomedical Big Data: Skill Development and Hands-On Training
Principal Investigators: Brian E. Chapman, Matthew Samore
Direct Costs: $444,000 Total Costs: $479,520
National Institutes of Health
Role: Co-Principal Investigator

09/30/2016 — 06/30-2019 (no cost continuation)

Curriculum in Biomedical Big Data: Skill Development and Hands-On Training
Principal Investigators: Brian E. Chapman, Matthew Samore
Direct Costs: $444,000 Total Costs: $479,520
National Institutes of Health
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09/30/2016 — 06/30-2019 (no cost continuation)

Curriculum in Biomedical Big Data: Skill Development and Hands-On Training
Principal Investigators: Brian E. Chapman, Matthew Samore
Direct Costs: $444,000 Total Costs: $479,520
National Institutes of Health
Role: Co-Principal Investigator

08/17/16 — 07/31/20

High Resolution MRI for Carotid Disease
Principal Investigator: Dennis Parker
Direct Costs: $1,800,000 Total Costs: $2,682,000
National Institutes of Health
Role: Co Investigator

07/01/2018— 06/30/2019

Basic Data Science for Basic Scientists
Principle Investigator: Wendy W. Chapman
Total Costs: $99,997
National Library of Medicine
Role: Co Investigator

07/01/97 — 06/30/02

Rule-Based CAD of Digitized Mammograms
R01 CA77850
Principal Investigator: Gur
National Cancer Institute
Role: Co-Investigator

09/01/98 — 01/31/01

Non-ROC Measures for Evaluating Image Compression
R01 LM06236
Principal Investigator: Good
National Library of Medicine
Role: Co-Investigator

02/01/00 — 01/31/04
Investigations of Multi-View CAD for Mammography
R01 CA80836
Principal Investigator: Good
National Cancer Institute
Role: Co-Investigator

10/01/00 — 09/30/02
Computerized Measure of Breast Composition with Application to Computer Aided Detection
IMAG00-000362
Principal Investigator: Wang
Susan G. Komen Breast Cancer Foundation
Role: Co-Investigator

12/01/02 — 11/30/05
High Resolution Cervical Carotid Imaging with MR
NIH-NHLBI (Subcontract to University of Utah)
Principal Investigator: Brian E. Chapman
Direct Costs: $81,965 Total Costs: $81,965
National Heart, Lung, and Blood Institute
Role: Principal Investigator

04/01/04 — 03/31/07
Multispectral MR Analysis of Hepatocellular Carcinoma
NIH-NCI 1 R21 CA095759-01A2
Principal Investigator: Brian E. Chapman
Direct Costs: $326,889 Total Costs: $326,889
National Cancer Institute
Role: Principal Investigator

03/01/06 — 02/28/10
High Resolution Cervical Carotid Imaging with MR
NIH-NHLBI (Subcontract to University of Utah)
Principal Investigator: Brian E. Chapman
Direct Costs: $129,632 Total Costs: $129,632
National Heart, Lung, and Blood Institute
Role: Principal Investigator

03/01/06 — 02/28/10
High Resolution Cervical Carotid Imaging with MR
NIH-NHLBI (Subcontract to University of Utah)
Direct Costs: $129,632 Total Costs: $129,632
National Heart, Lung, and Blood Institute
Role: Co-Investigator

03/01/08 — 02/28/11
Automated Detection of Thromboembolic Disease in CT Images
NIH-NHLBI R01 HL087119
Direct Costs: $887,739 Total Costs: $887,739
National Heart, Lung, and Blood Institute
Role: Co-Investigator

03/01/08 — 02/28/11	Automated Detection of Thromboembolic Disease in CT Images NIH-NHLBI R01 HL087119 Principal Investigator: Brian E. Chapman Direct Costs: $887,739 Total Costs: $887,739 National Heart, Lung, and Blood Institute Role: Principal Investigator
09/01/10 — 06/30/13	Integrating Data for Analysis, Anonymization and Sharing NIH U54HL108460 Principal Investigator: Ohno-Machado Direct Costs: $16,760,000 Total Costs: $16,760,000 National Institutes of Health Role: Co-Investigator
10/01/12 — 09/30/13	QUERI: NLP for Carotid Stenosis VA RRP 12-185 Principal Investigator: W Chapman Direct Costs: $100,000 Total Costs: $100,000 U.S. Department of Veterans Affairs Role: Co-Investigator
04/01/13 — 03/31/15	VA Hi2 Notes Principal Investigator: Agha Direct Costs: $1,000,000 Total Costs: $1,000,000 U.S. Department of Veterans Affairs Role: Co-Investigator
07/01/17— 06/30/18	Development of Data Science Modules for Biomedical Informatics Education Principal Investigator: Wendy W. Chapman Total Costs: $99,264 National Library of Medicine Role: Co Investigator
09/15/15 — 08/31/16	Interactive Ensemble clustering for mixed data with application to mood disorders Principal Investigator: Brian E. Chapman Direct Costs: $11,325 Total Costs: $16,874 National Science Foundation (NSF) Role: Principal Investigator

TEACHING RESPONSIBILITIES/ASSIGNMENTS

Courses Directed

2002	Instructor, Information in Radiological Imaging, University of Pittsburgh, Biomedical Informatics. Course surveying the nature of information in medical imaging.

2005 — 2009	Instructor, Problem Oriented Programming with Python, University of Pittsburgh, Biomedical Informatics. Course introducing students without technical background to principles of programming.
2007 — 2008	Instructor, Introduction to Research in Biomedical Informatics, University of Pittsburgh, Biomedical Informatics. Course introducing students to methods (e.g., study design) and issues (such as ethics) related to conducting research in biomedical informatics.
2009	Instructor, Introduction to Processing and Visualizing Biomedical Data with Python, University of Pittsburgh, Biomedical Informatics. Review of a variety of mathematical and visualization techniques relevant to biomedical informatics including: linear algebra, curve fitting, image processing, Fourier analysis.
2009	Instructor, Mathematical Foundations of Biomedical Informatics, University of Pittsburgh, Biomedical Informatics. A survey course of topics from discrete mathematics, calculus, linear algebra, and approximation theory.
2010	Instructor, Python for Biomedical informatics, University of Pittsburgh, Biomedical Informatics. A second semester programming course emphasizing agile development principles with applications drawn from bioinformatics.
2011 — 2012	Organizer/Instructor, MED 264: Principles of Biomedical Informatics, 3 credit hours, University of California, San Diego, Biomedical Informatics. A one-quarter introduction to the domain of biomedical informatics.
2012	Organizer/Instructor, Biomedical Informatics Boot Camp, University of California, San Diego, Biomedical Informatics. Two-week review of foundations for graduate studies in biomedical informatics. I was the course organizer and taught a four-day course on introduction to computer programming.
2014	Instructor, BMI 6950 (3): Special Topics, 11 SCH, 7 students, University of Utah, Biomedical Informatics. Practicum course for Midvale Clinic EHR
2014	Primary Instructor, MDCRC 6521 (1): Computer Programming for Biomedical Researchers, 3 credit hours, 81 SCH, 27 students, University of Utah, Ctr Clinical & Translational Sci
2014	Instructor, BMI 6950 (3): Special Topics, 2 SCH, 1 student, University of Utah, Biomedical Informatics. Practicum class for building EHR at Midvale Clinic. Taught with Kathy Sward and Wendy Chapman.
2014	Primary Instructor, BMI 7010 (3): Journal Club, 7 SCH, 7 students, University of Utah, Biomedical Informatics
2014	Instructor, BMI 6950 (3): Special Topics, 5 SCH, 3 students, University of Utah, Biomedical Informatics. Practicum course for Midvale Clinic EHR. Taught with Kathy Sward and Wendy Chapman
2014	Instructor, BMI 7010 (3): Journal Club, 1 credit hour, 7 SCH, 7 students, University of Utah, Biomedical Informatics. Journal Club for visualization in biomedical informatics. Co-taught with Karen Eilbeck
2015	Primary Instructor, MDCRC 6521 (1): Computer Programming for Biomedical Researchers, 26 SCH, 12 students, University of Utah, Ctr Clinical & Translational Sci

2016	Primary Instructor, MDCRC 652 (1): Computer Programming for Biomedical Researchers, 0 SCH, 2 students, University of Utah, Ctr Clinical & Translational Sci
2016	Primary Instructor, BMI 6950 (8): Special Topics, 3 SCH, 1 student, University of Utah, Biomedical Informatics
2016	Primary Instructor, MDCRC 6521 (1): Computer Programming for Biomedical Researchers, 3 credit hours, 12 SCH, 4 students, University of Utah, Ctr Clinical & Translational Sci
2016	Primary Instructor, BMI 6950 (6): Special Topics, 3 SCH, 1 student, University of Utah, Biomedical Informatics
2016	Primary Instructor, BMI 695 (6): Computer Programming for Biomedical Researchers, 0 SCH, 2 students, University of Utah, Biomedical Informatics
2016	Primary Instructor, BMI 6240 (1): Imaging Informatics, 2 SCH, 2 students, University of Utah, Biomedical Informatics
2016	Course Director, University of Utah Data Science for Health Summer School. 5 week course. Consisting of two formal, four hours per day two week courses (biomedical data science bootcamp BMI 7051/ NLP for Biomedical Data BMI 7052) and one informal three-day course (Time Series analysis). The Bootcamp averaged between 35-40 students per day, the NLP and time series courses averaged around 20-25 students per day.
2016	BMI 6950/MDCRC 6521:, Computational and Mathematical Foundations of Biomedical Informatics, 3 credit hours, 15 students.
2017	Co-Director, DeCART Summer School. This was a 5 week program funded by our NIH R25 grant. We had around 120 participate from around the United States, as well as visiting students from Korea. The course consisted of 11 classes taught by 17 instructors.
2017	Instructor, DeCART Biomedical Data Science Boot Camp, Part 1. Approximately 50 students participated
2017	Instructor, DeCART Biomedical Data Science Boot Camp, Part 2. Approximately 50 students participated
2017	Primary Instructor, BMI 7052 (1): Data Science II, 1 SCH, 1 student, University of Utah, Biomedical Informatics
2017	Primary Instructor, BMI 7051 (1): Data Science I, 1 SCH, 1 student, University of Utah, Biomedical Informatics
2017	Primary Instructor, BMI 6018: Computer Programming for Biomedical Scientists, 3 credit hours, 57 students.
2017	Co-Instructor, BMI 6203: Clinical Database Design, 2 credit hours, 42 students.
2018	Co-Instructor, BE/ECE 7310: Advanced Magnetic Resonance Imaging, 3 credit hours. 10 students
2018	Instructor, DeCART Biomedical Data Science Boot Camp, Part 1. Approximately 60 students participated
2018	Instructor, DeCART Biomedical Data Science Boot Camp, Part 2. Approximately 60 students participated

2018	Instructor, DeCART Advanced Python: Introduction to Debugging and Linear Algebra. Approximately 25 students participated.
2018	Primary Instructor, BMI 6018: Introduction to Programming for Biomedical Data Science, 3 credit hours. 45 students
2018	Primary Instructor, BMI 6950: Programming Fundamentals for Biomedical Informatics, 3 credit hours. 8 students
2018	Co-Instructor, BMI 6203: Clinical Database Design, 2 credit hours, 34 students.
2019	Instructor, DeCART Biomedical Data Science Boot Camp, Part 1. Approximately 30 students participated
2019	Instructor, DeCART Biomedical Data Science Boot Camp, Part 2. Approximately 30 students participated
2019	Co-Instructor (with John Dallon), DeCART Introduction to Linear Algebra for Data Science. Approximately 20 students participated.
2020	Instructor, Introduction to e-Health and Biomedical Informatics (Term 1). University of Melbourne. Approximately 70 students
2020	Instructor, Introduction to e-Health and Biomedical Informatics (Winter Term). University of Melbourne. Approximately 70 students
2021	Subject coordinator, Digital Transformation of Health (Term 1). University of Melbourne. Approximately 50 students.
2021	Subject coordinator, Digital Transformation of Health (winter term). University of Melbourne. Approximately 80 students.
2022	Subject coordinator, Digital Transformation of Health (Term 1). University of Melbourne. Approximately 30 students.
2022	Subject coordinator, Digital Transformation of Health (winter term). University of Melbourne. Approximately 50 students.
2023	Subject coordinator, Digital Transformation of Health (Term 1). University of Melbourne. Approximately 80 students.
2023	Subject coordinator, Digital Transformation of Health (Winter term). University of Melbourne. (Approximately 120 students)
2023	Subject coordinator, Machine Learning Applications for Health (Term 2). University of Melbourne. (Approximately 70 students)
2024	Subject coordinator, Digital Transformation of Health (Semester 1). University of Melbourne. (Approximately 120 students)
2024	Subject coordinator, Digital Transformation of Health (Semester 1). University of Melbourne. (Approximately 180 students)

2024	Subject coordinator, Machine Learning Applications for Health (Term 2). University of Melbourne. (Approximately 150 students)

Course Lectures

1993	Instructor, Sophomore Circuits Lab, University of Wisconsin–Madison, Electrical Engineering
1999	Instructor, RDLGY: Advanced Magnetic Resonance Imaging, University of Utah, Radiology. Cross-listed with electrical engineering and bioengineering.
1999	Instructor, BMI: Medical Informatics Seminar, University of Utah, Biomedical Informatics

Trainee Supervision

PhD/Doctorate

2004 — 2005	Post Doctoral Advisor, Huadong Wu, University of Pittsburgh
2008 — 2013	Dissertation Advisor, Holly Perri Berty, University of Pittsburgh, PhD/Doctorate Committee. Department of Biomedical Informatics
2010 — 2011	Post Doctoral Advisor, Xiaofei Song, University of California, San Diego
2012 — 2013	Post Doctoral Advisor, Ali Zifan, University of California, San Diego
2014	Advisor/Mentor, Wei Liu, University of Utah. Postdoctoral Advisor *Trainee's Current Career Activities:* Research Scientist at Exxon Mobile
2016 – 2018	Co-chair, Cameron Waller, University of Utah, PhD/Doctorate Committee, Department of Biochemistry.

Masters

2001 — 2003	Chair, Christina Lee, University of Pittsburgh, Masters Committee. Masters of Science, Department of Bioengineering
2014 — 2015	Advisor/Mentor, Stuart Schulthies, University of Utah. Advisor for MS project in Statistics *Trainee's Current Career Activities:* Data Scientist
2015 — 2016	Advisor/Mentor, Mohan Manchala, University of Utah. Mentor for MS project in Computer Science
2015 — 2016	Supervisor, Seth Russell, University of Utah. Mentor for MS project in Biomedical Informatics *Trainee's Current Career Activities:* Software Engineer at Intermountain Healthcare
2021	Supervisor, Jose Corado, University of Melbourne. Mentor for MS project in Information Systems.

2023—2024	Sterre de Grafie, KU Leuven, Belgium. Mentory/daily supervisor for MS project in Computer Science. LLMs for cancer patient question answering
2024	Maolin He, University of Melbourne. Mentor for MS project in Masters of Information Technology. Optimal vector stores for RAG-based biomedical question answering systems.
2024	Edward Liu, University of Melbourne. Mentor for MS project in Masters of Data Science. Novel similarity measures for RAG-based biomedical question answering systems.
2024	Hao Xu, University of Melbourne. Mentor for MS project in Masters of Information Technology. Automated segmentation of aortic dissections using deep learning.
2024	Zixin Hao, University of Melbourne. Mentor for MS project in Masters of Information Technology. Improved segmentation of renal tumors in abdominal CT images.

Medical Student

2006 — 2007	Supervisor, Emily Spangler, University of Pittsburgh. School of Medicine
2006 — 2009	Supervisor, Katherin Peperzak, University of Pittsburgh. School of Medicine
2008 — 2011	Supervisor, Sean Lee, University of Pittsburgh. School of Medicine
2022	Supervisor, Andrew Xu, University of Melbourne. MD3 research project
2022	Supervisor, Luke Newbegin, University of Melbourne. MD3 research project.

Graduate Student Committees

2000	Member, Caroline Hutchins, University of Utah, Masters Committee. Masters of Statistics, Department of Mathematics
2005 — 2006	Member, Pinaki Mitra, University of Pittsburgh, PhD/Doctorate Committee. Center for Biomedical Informatics
2007 — 2009	Member, Regina Irwin, University of Pittsburgh, PhD/Doctorate Committee. Department of Biomedical Informatics
2007	Comprehensive Exam Committee Member, Jeannie Irwin, University of Pittsburgh, PhD/Doctorate Committee. Department of Biomedical Informatics
2008 — 2011	Member, Gaurav Shukla, University of Pittsburgh, PhD/Doctorate Committee. Department of Bioengineering
2008 — 2011	Member, Judy Shum, Carnegie Mellon University, PhD/Doctorate Committee. Department of Bioengineering

2009 — 2015	Dissertation Advisor, Rich Wilson, University of Pittsburgh, PhD/Doctorate Committee. Department of Biomedical Informatics
2009 — 2012	Member, Jordan Hulet, University of Utah, PhD/Doctorate Committee. Department of Biomedical Informatics
2010	Comprehensive Exam Committee Member, Rich Wilson, University of Pittsburgh, PhD/Doctorate Committee. Department of Biomedical Informatics
2014 — 2016	Member, Keith Simmon, University of Utah, PhD/Doctorate Committee, Department of Biomedical Informatics
2014 — 2015	Member, Alex Mcharia, University of Utah, Masters Committee, Department of Biomedical Informatics
2014— 2017	Member, Shelley MacNeil, University of Utah, PhD/Doctorate Committee, Department of Oncological Science
2016	Member, Paris Vail, University of Utah, Masters Committee, Deparatment of Biomedical Informatics
2016 – 2018	Member, Cameron Waller, University of Utah, PhD/Doctorate Committee, Department of Biochemistry.
2024—-present	Member, Liuliu Chen, University of Melbourne, PhD Committee, School of Computing and Information Systems.

Educational Lectures

Didactic Lectures

2006 — 2010	Department Colloquium, Organize Speakers for Weekly Lecture Series, Department of Biomedical Informatics, University of Pittsburgh, Pittsburgh, PA

Department/Division Conferences

2009 — 2010	Journal Club Coordinator, First Year Students, Department of Biomedical Informatics, University of Pittsburgh, Pittsburgh, PA

PEER-REVIEWED JOURNAL ARTICLES

1. Zhang YS, Scharer JE, **Chapman BE** (1993). Electron Cyclotron Wave Scattering by a Probe-Launched Ion Acoustic Wave. *Phys Plasmas*, *5*, 3887-3892.
2. **Chapman BE**, Sanderson AR, Goodrich KC, Alexander AL, Blatter DD, Parker DL (1997). Observer performance methodologies for evaluating blood vessel visibility in MR angiograms using accurate geometric registration to high resolution x-ray angiograms. *Magn Reson Med*, *37*(4), 519-29.
3. Alexander AL, Buswell HR, Sun Y, **Chapman BE**, Tsuruda JS, Parker DL (1998). Intracranial black-blood MR angiography with high-resolution 3D fast spin echo. *Magn Reson Med*, *40*(2), 298-310.
4. **Chapman BE**, Goodrich CK, Alexander AL, Blatter DD, Parker DL (1999). Evaluation of measures of technical image quality for intracranial magnetic resonance angiography. *Comput Biomed Res*, *32*(6), 530-56.
5. Alexander AL, **Chapman BE**, Tsuruda JS, Parker DL (2000). A median filter for 3D FAST spin echo black blood images of cerebral vessels. *Magn Reson Med*, *43*(2), 310-3.

6. Parker DL, **Chapman BE**, Roberts JA, Alexander AL, Tsuruda JS (2000). Enhanced image detail using continuity in the MIP Z-buffer: applications to magnetic resonance angiography. *J Magn Reson Imaging*, *11*(4), 378-88.

7. Hadley JR, **Chapman BE**, Roberts JA, Chapman DC, Goodrich KC, Buswell HR, Alexander AL, Tsuruda JS, Parker DL (2000). A three-coil comparison for MR angiography. *J Magn Reson Imaging*, *11*(4), 458-68.

8. Chapman WW, Fiszman M, Frederick PR, **Chapman BE**, Haug PJ (2001). Quantifying the characteristics of unambiguous chest radiography reports in the context of pneumonia. *Acad Radiol*, *8*(1), 57-66.

9. Chapman WW, Fizman M, **Chapman BE**, Haug PJ (2001). A comparison of classification algorithms to automatically identify chest X-ray reports that support pneumonia. *J Biomed Inform*, *34*(1), 4-14.

10. Christian ME, Davidson HC, Wiggins RH 3rd, Berges G, Cannon G, Jackson G, **Chapman B**, Harnsberger HR (2001). Digital processing of radiographic images from PACS to publishing. *J Digit Imaging*, *14*(1), 14-7.

11. Wang XH, Good WF, **Chapman BE**, Chang YH, Poller WR, Chang TS, Hardesty LA (2003). Automated assessment of the composition of breast tissue revealed on tissue-thickness-corrected mammography. *AJR Am J Roentgenol*, *180*(1), 257-62.

12. Parker DL, Goodrich KC, Roberts JA, **Chapman BE**, Jeong EK, Kim SE, Tsuruda JS, Katzman GL (2003). The need for phase-encoding flow compensation in high-resolution intracranial magnetic resonance angiography. *J Magn Reson Imaging*, *18*(1), 121-7.

13. Chapman WW, Cooper GF, Hanbury P, **Chapman BE**, Harrison LH, Wagner MM (2003). Creating a text classifier to detect radiology reports describing mediastinal findings associated with inhalational anthrax and other disorders. *J Am Med Inform Assoc*, *10*(5), 494-503.

14. Leader JK, Zheng B, Rogers RM, Sciurba FC, Perez A, **Chapman BE**, Patel S, Fuhrman CR, Gur D (2003). Automated lung segmentation in X-ray computed tomography: development and evaluation of a heuristic threshold-based scheme. *Acad Radiol*, *10*(11), 1224-36.

15. **Chapman BE**, Parker DL, Stapelton JO, Tsuruda JS, Mello-Thoms C, Hamilton B, Katzman GL, Moore K (2004). Diagnostic fidelity of the Z-buffer segmentation algorithm: preliminary assessment based on intracranial aneurysm detection. *J Biomed Inform*, *37*(1), 19-29.

16. **Chapman BE**, Stapelton JO, Parker DL (2004). Intracranial vessel segmentation from time-of-flight MRA using pre-processing of the MIP Z-buffer: accuracy of the ZBS algorithm. *Med Image Anal*, *8*(2), 113-26.

17. Mello-Thoms C, **Chapman B** (2004). A preliminary report on the role of spatial frequency analysis in the perception of breast cancers missed at mammography screening. *Acad Radiol*, *11*(8), 894-908.

18. Wu H, Krasinskas AM, Tublin ME, **Chapman BE** (2005). Registering liver pathological images with prior in vivo CT/MRI data. *Med Image Comput Comput Assist Interv*, *8*(Pt 1), 564-71.

19. **Chapman BE**, Yankelevitz DF, Henschke CI, Gur D (2005). Lung cancer screening: simulations of effects of imperfect detection on temporal dynamics. *Radiology*, *234*(2), 582-90.

20. Christina Lee WC, Tublin ME, **Chapman BE** (2005). Registration of MR and CT images of the liver: comparison of voxel similarity and surface based registration algorithms. *Comput Methods Programs Biomed*, *78*(2), 101-14.

21. **Chapman BE**, Parker DL (2005). 3D multi-scale vessel enhancement filtering based on curvature measurements: application to time-of-flight MRA. *Med Image Anal*, *9*(3), 191-208.

22. Zhang L, **Chapman BE**, Parker DL, Roberts JA, Guo J, Vemuri P, Moon SM, Noo F (2005). Automatic detection of three-dimensional vascular tree centerlines and bifurcations in high-resolution magnetic resonance angiography. *Invest Radiol*, *40*(10), 661-71.

23. **Chapman BE**, Minalga ES, Brown C, Roberts JA, Hadley JR (2008). Reducing morphological variability of the cervical carotid artery in serial magnetic resonance imaging using a head and neck immobilization device. *J Magn Reson Imaging*, *28*(1), 258-62.

24. Wilson RA, Chapman WW, Defries SJ, Becich MJ, **Chapman BE** (2010). Automated ancillary cancer history classification for mesothelioma patients from free-text clinical reports. *J Pathol Inform*, *1*, 24.

25. Park SC, **Chapman BE**, Zheng B (2011). A multistage approach to improve performance of computer-aided detection of pulmonary embolisms depicted on CT images: preliminary investigation. *IEEE Trans Biomed Eng*, *58*(6), 1519-27.

26. **Chapman BE**, Lee S, Kang HP, Chapman WW (2011). Document-level classification of CT pulmonary angiography reports based on an extension of the ConText algorithm. *J Biomed Inform*, *44*(5), 728-37.

27. Berty HL, Simon M, **Chapman BE** (2012). A semi-automated quantification of pulmonary artery dimensions in computed tomography angiography images. *AMIA Annu Symp Proc*, *2012*, 36-42.

28. Ohno-Machado L, Bafna V, Boxwala AA, **Chapman BE**, Chapman WW, Chaudhuri K, Day ME, Farcas C, Heintzman ND, Jiang X, Kim H, Kim J, Matheny ME, Resnic FS, Vinterbo SA (2012). iDASH: integrating data for analysis, anonymization, and sharing. *J Am Med Inform Assoc*, *19*(2), 196-201.

29. Chapman WW, Hillert D, Velupillai S, Kvist M, Skeppstedt M, **Chapman BE**, Conway M, Tharp M, Mowery DL, Deleger L (2013). Extending the NegEx Lexicon for Multiple Languages. *Stud Health Technol Inform*, *192*, 677-81.

30. Zifan A, Liatsis P, **Chapman BE** (2013). The use of the Kalman filter in the automated segmentation of EIT lung images. *Physiol Meas*, *34*(6), 671-94.

31. Chapman WW, Hilert D, Velupillai S, Kvist M, Skeppstedt M, **Chapman BE**, Conway M, Tharp M, Mowery DL, Deleger L (2013). Extending the NegEx lexicon for multiple languages. *Stud Health Technol Inform*, *192*(6), 677-681.

32. Velupillai S, Skeppstedt M, Kvist M, Mowery D, **Chapman BE**, Dalianis H, Chapman WW (July 2014). Cue-based assertion classification for Swedish clinical text—developing a lexicon for pyConTextSwe. *Artif Intell Med*, *61*(3), 137-144.

33. **Chapman BE**, Berty HP, Schulthies SL (08/2015). Automated generation of directed graphs from vascular segmentations. *J Biomed Inform*, *56*, 395-405.

34. Mowery D, **Chapman BE**, Conway M, South BR, Madden E, Keyhani S, Chapman WW (05/10/2016). Extracting a Stroke Phenotype Risk Factor from Veteran Health Administration Clinical Reports: An Information Content Analysis. *Journal of Biomedical Semantics*, *7*, 26.

35. Chen MC, Ball RL, Yang L, Moradzadeh N, **Chapman BE,** Larson DB, Langlotz CP, Amrhein TJ, Lungren MP Deep Learning to Classify Radiology Free-Text Reports. *Radiology 2017 (286):845-852*.

36. Yu H, **Chapman B**, Di Florio A, Eischen E, Gotz D, Jacob M, Hageman Blair R. Bootstrapping estimates of stability for clusters, observations and model selection. https://doi.org/10.1007/s00180-018-0830-y. *Comput Stat 2018.*

37. Banerjee I, Ling Y, Chen MC, Hasan SA, Langlotz CP, Moradzadeh N, **Chapman B**, Amrhein T, Mong D, Rubin DL, Farri O, Lungren MP. (23 November 2018). Comparative effectiveness of convolutional neural network (CNN) and recurrent neural network (RNN) architectures for radiology text report classification. *Artif Intell Med.* 2019 Jun;97:79-88.

38. Heilbrun ME, **Chapman BE**, Narasimhan E, Patel N, Mowery D. Feasibility of Natural Language Processing-Assisted Auditing of Critical Findings in Chest Radiology. *J Am Coll Radiol*. 2019 Jun 21. pii: S1546-1440(19)30638-6

39 Hedges DM, Hegman JC, **Chapman BE**, Butson CR. The International Neuromodulation Registry: an informatics framework supporting cohort discovery and analysis. *Front. Neuroinform.* | doi: 10.3389/fninf.2020.00036

40 Waller TC, Berg JA, Lex A, **Chapman BE**, Rutter J. Compartment and hub definitions tune metabolic networks for metabolomic interpretations. *Gigascience.* 2020 Jan 1;9(1):giz137. doi: 10.1093/gigascience/giz137.

41 Dushyanthen S, Choo D, Perrier M, Gray K, Capurro D, Pires D, **Chapman BE**, Hart GK, Huckvale K, Chapman WW, Lyons K. Designing an Interprofessional Online Course to Foster Learning Health Systems. *Stud Health Technol Inform.* 2024 Jan 25;310:1241-1245. doi: 10.3233/SHTI231163. PMID: 38270013.

BOOK CHAPTERS

1. **Chapman BE**, Goodrich KC, Alexander AL, Blatter DD, Parker DL (1997). Two Alternative Forced Choice Evaluation of Vessel Visibility Increases Due to Zero-filled Interpolation; published from proceedings at the15th International Conference on Information Processing in Medical Imaging, IPMI'97, Poultney, VT. In Duncan J S, Gindi G (Eds.), *Lecture Notes in Computer Science* (*1230*, pp. 453-458). Berlin: Springer.
2. Huang SP, **Chapman BE**, Muhlestein JE, Parker DL (1997). Computer Simulation of Convection and Diffusion Effects on Velocity Estimations from X-Ray Contrast Density Time Curves; published from proceedings at the15th International Conference on Information Processing in Medical Imaging, IPMI'97, Poultney, VT. In Duncan J S, Gindi G (Eds.), *Lecture Notes in Computer Science* (*1230*, pp. 453-458). Berlin: Springer.
3. Vemuri P, Kholmovski EG, Parker DL, **Chapman BE** (2005). Coil sensitivity estimation for optimal SNR reconstruction and intensity inhomogeneity correction in phased array MR imaging. In *Inf Process Med Imaging* (*19*, pp. 603-14). Germany.
4. Marta E. Heilbrun, Justin Cramer, and **Brian E. Chapman** (10/26/2018). Structured Reporting: The Value Concept for Radiologists. In Lluís Donoso-Bach • Giles W. L. Boland (Ed.). *Quality and Safety in Imaging* (pp. 99-107). Cham, Switzerland: Springer.

CONFERENCE PROCEEDINGS

1. **Chapman BE**, Iskander MF, Smith RL, Andrade OM (1992). Simulation of Sintering Experiments in Single-Mode Cavities. *Materials Research Society Symposium Proceedings*, *269*.
2. **Chapman BE**, Parker DL (2001). Comparison of three multi-scale vessel enhancement filters intended for intracranial MRA: initial phantom results. *SPIE Medical Imaging 2001: Image Processing*, *4322*, 1853-1861.

3. Habets DF, **Chapman BE**, Fox AJ, Hyde D, Holdsworth DW (2001). Two-alternative forced choice evaluation of 3-D CT angiograms. *SPIE Medical Imaging 2001: Image Perception and Performance*, *4324*, 195-203.

4. Leader JK, Wang XH, Chang YH, **Chapman BE** (2002). Visualization of 3-D geometric models of the breast created from contrast enhanced MRI. *SPIE Medical Imaging 2002: Visualization, Image-Guided Procedures, and Display*, *4681*, 218-225.

5. **Chapman BE**, Wang XH, Good WF (2002). Automated estimation of breast composition from MR images. *SPIE Medical Imaging 2002: Image Processing*, *4684*, 1770-1779.

6. Wang XH, **Chapman BE**, Britton CA, Golla SK, Wallace LP, Good WF (2003). Evaluation of quantitative measures of breast tissue density from mammography with truth from MRI data. *SPIE Medical Imaging 2003: Image Processing*, *5032*.

7. Zheng B, Leader JK, Maitz GS, **Chapman BE**, Fuhrman CR, Rogers, RM, Sciurba FC, Perez A, Thompson P, Good WF, Gur D (2003). A simple method for automated lung segmentation in X-ray CT images. *SPIE Medical Imaging 2003: Image Processing*, *5032*.

8. **Chapman BE**, Mello-Thoms C (2004). Numerical simulations of spectral phase and spectral distance behavior as scalar descriptors of multispectral data. *SPIE Medical Imaging 2004: Image Processing*, *5370*, 1914-1923.

9. Spangler E, Brown C, **Chapman BE** (2007). Evaluation of internal carotid artery segmentation by InsightSNAP. *SPIE Medical Imaging 2007: Image Processing*, *6512*(5), 65123F.

10. Shukla G, Wang B, Galeotti J, Klatzky R, Wu B, Unger B, Shelton D, **Chapman B**, Stetten G (2009). A Movable Tomographic Display for 3D Medical Images. *Augmented Environments for Medical Imaging Including Augmented Reality in Computer-Aided Surgery at Medical Image Computing and Computer-Assisted Intervention*, London, England.

11. Park S, **Chapman B**, Deible C, Lee S, Zheng B (2010). Improving CAD performance in pulmonary embolism detection: preliminary investigation. *SPIE Symposium on Medical Imaging*, San Diego, CA.

12. Stetten G, Horvath S, Galeotti J, Shukla G, **Chapman B** (2010). Image segmentation using the student's t-test on adjacent spherical populations of pixels. *SPIE Medical Imaging 2010: Image Processing*, San Diego, CA, *7623*.

13. Wang X, Song X, **Chapman BE**, Zheng B (2012). Improving Performance of Computer-aided Detection of Pulmonary Embolisms by Incorporating a New Pulmonary Vascular-tree Segmentation Algorithm. *SPIE Medical Imaging 2012: Computer-Aided Diagnosis*, *8315*, 83152U-83152U-8.

14. Velupillai S, Skeppstedt M, Kvist M, Mowery D, **Chapman BE**, Dalianis H, Chapman WW (2013). Porting a Rule-based Assertion Classifier for Clinical Text from English to Swedish. In Suominen H (Ed.), *Louhi2013: 4th International Workshop on Health Document Text Mining and Information Analysis with the Focus of Cross-Language Evaluation*, Sydney, Australia.

15. **Chapman BE**, Irwin J (07/10/2015). Python as a First Programming Language for Biomedical Scientists. In Huff K, Bergstra J (Eds.), *14th Python in Science Conference*, Austin, TX: http://conference.scipy.org/proceedings/scipy2015/.

16. **Chapman BE**, Mowery D, Narasimhan E, Patel N, Chapman WW, Heilbrun ME (08/13/2016). Assessing the Feasibility of an Automated Suggestion System for Communicating Critical Findings from Chest Radiology Reports to Referring Physicians. In Claire Nédellec, Robert Bossy and Jin-Dong Kim (Eds.), *ACL 2016 BioNLP*, Berlin: Springer, 181-185.

17. **Chapman BE** and Roberts JA(12/09/2016). An Image Phenotyping Environment Based on Open-Source Tools. In Larry Hunter (Ed.), *14th Annual Rocky Mountain Bioinformatics Conference*, Aspen, CO.

18. **Chapman BE**, Roberts JA, Sorenson A (06/02/2017). Creating an Open Source Infrastructure for Image Phenotyping in Clinical Research. *SIIM 2017 Annual Meeting*, Pittsburgh, PA: SIIM.

19. **Chapman BE** (06/08/2017). Eratosthenes, Hypatia, and Friends: Ruminations on Potential Patron Philosophers of Biomedical Informatics. *InSpire 2017*, San Diego, CA.

20. Borbolla D, Weir C, **Chapman B**, Garvin J, Eilbeck K, Chapman W (06/08/2017). Training the Next Generation of Informaticians: Combining Content, Context and Practice. *InSpire 2017*, San Diego, CA: AMIA.

21. **Chapman BE** (06/20/2018). Books for Big Thinking: What Should Informatics Students Be Reading? *AMIA 2018 Informatics Educators Forum*, New Orleans, LA.

22 Xu A, **Chapman BE.** Patient access to health data: a review of philosophic and healthcare issues. MEDINFO 2023, Sydney, NSW, AU (July 2023)

23 Newbegin L, **Chapman BE**. A narrative review of sociodemographic disparities in relation to PEHR access. MEDINFO 2023, Sydney, NSW, AU (July 2023)

24 **Chapman BE**, Chapman WW, Chapman JB. Analyzing the spread of informatics with PubMed. MEDINFO 2023, Sydney, NSW, AU (July 2023)

OTHER (Commentary/Letters/Editorials/Case Reports/Video/Film)

Patents

1. Parker DI, Alexander AL, Roberts JA, **Chapman BE** (01/06/04). Method and apparatus for enhancing an image using data optimization and segmentation. U.S. Patent No. 6,674,894. Washington, D.C.:U.S. Patent and Trademark Office.

PENDING PUBLICATIONS

1. **Chapman BE.** Health Informatics as Rebellion: A Vision for Health Informatics Education. In preparation for *Minerva: A Review of Science, Learning and Policy*.

2 **Chapman BE**. Epistemic Injustice: A Framework for Motivating Biomedical Informatics. In preparation for *JAMIA*.

3 He M, Gao R, Conway MA, **Chapman BE**. Developing optimal grounding resources for cancer patient question answering systems. In preparation for *IEEE Journal of Biomedical and Health Informatics*.

4 He M, Gao R, Conway MA, **Chapman BE**. Creating a Cancer Patient-facing Question Answering System using LLMs. In preparation for *IEEE Journal of Biomedical and Health Informatics*.

5 Hammad A, **Chapman BE.** Can AI Models Walk Across Hospitals? An External Validation of a Bayesian Network for Sepsis Mortality Prediction. In preparation for Methods of Information for Medicine.

Xu H. Lim R. **Chapman BE**. Advanced Deep Learning Techniques for Automated Segmentation of Aortic Dissections.

UNPUBLISHED POSTER PRESENTATIONS

1. Song X, **Chapman BE** (October 2011). *A novel masking technique for pulmonary vasculature segmentation.* Poster session presented at AMIA 2011 Annual Symposium, Washington, DC.
2. Berty H, Simon M, **Chapman BE** (October 2011). *Assessment of Pulmonary Hypertension from Semi-Automated Geometric Analysis of Computed Tomography Images.* Poster session presented at AMIA 2011 Annual Symposium, Washington, DC.
3. Wilson RA, **Chapman BE** (October 2011). *Combined Bootstrap Approach for Correcting Conflated Terms Error in Radiology Reports.* Poster session presented at AMIA 2011 Annual Symposium, Washington DC.
4. Wilson RA, **Chapman BE** (November 2011). *Automated Capture of Pulmonary Embolism Spatial Location in Dictated Reports Using the ConText Algorithm.* Poster session presented at RSNA 2011, Chicago, IL.
5. Sullivan A., Berty H, **Chapman BE** (March 2012). *Characterizing Populations of Vascular Structures with Graphs.* Poster session presented at 2012 AMIA CRI Summit, San Francisco, CA.
6. Sideris K. Leong L, **Chapman BE** (March 2012). *Using Coronal Depth Maps to Detect Identifiable Surface Features on Structural Head Imaging.* Poster session presented at 2012 AMIA CRI Summit, San Francisco, CA.
7. Hon S, Berty H, **Chapman BE** (March 2012). *Surface-Shape Characterization of Pulmonary Hypertension.* Poster session presented at 2012 AMIA CRI Summit, San Francisco, CA.
8. **Chapman BE**, Wei W, Chapman WW (September 2012). *The Frequency of ConText Lexical Items in Diverse Medical Texts.* Poster session presented at IEEE HISB 2012, La Jolla, CA.
9. **Chapman BE**, Roberts JA, Schulthies S (07/10/2015). *Using Python and Jupyter Notebooks for a Biomedical Imaging Phenotyping Service.* Poster session presented at 14th Python in Science Conference, Austin, TX.
10. Barth TE, Haddadin ZM, **Chapman BE**, Heilbrun ME (09/20/2016). *Using template reporting for CTPA to improve diagnostic certainty in radiology reports.* Poster session presented at SCBT-MR 2016, Salt Lake City.
11. Hageman RB, **Chapman BE,** Di Florio A, Eischen E, Gotz D, Jacob M. Interactive Ensemble Clustering for Mixed Data with Application to Mood Disorders. Poster session presented at BD2K All Hands Meeting 2016, Bethesda, MD.
12. **Chapman BE,** Ziegenfuss DH, Samore MH. Biomedical Big Data Training for Novices: Initial Experience With a Short-Term Summer School. Poster session presented at BD2K All Hands Meeting 2016, Bethesda, MD.
13. **Brian E. Chapman**, Ph.D, Donna H. Ziegenfuss, Ed.D., Melissa L. Rethlefsen, MSLS, Karen Eilbeck, Ph.D., Wendy W. Chapman, Ph.D., Matthew H. Samore, M.D. DeCART: A Short-term Summer Training Program for Biomedical Data Science. 2018 Informatics Educators Forum, New Orleans, LA, June 20, 2018.
14. **Brian E. Chapman, PhD,** Mark J. Keller, MS, Wendy W. Chapman, PhD, Matthew H. Samore, MD**.** Creating an On-Demand On-Line Learning Environment for Biomedical Informatics and Data Science. 2019 AMIA Informatics Educators Forum, St. Louis, MO, June 19, 2019.

15. Wendy W. Chapman, Samir AbdelRahman, Jeff Ferraro, **Brian E. Chapman**, Charlene Weir, Damian Borbolla, Edgar Javier Hernandez, John Hurdle, Olga Patterson, Karen Eilbeck. Creating a New Data Science Track in a Traditional Biomedical Informatics Training Program. 2019 AMIA Informatics Educators Forum, St. Louis, MO, June 19, 2019.

16. **Brian E. Chapman**. A Last Lecture for Biomedical Informatics Students. 2019 AMIA Informatics Educators Forum, St. Louis, MO, June 20, 2019.

ORAL PRESENTATIONS

Meeting Presentations (Not Published Abstracts and Not Unpublished Posters)

1996 Parker DL, Buswell HR, Goodrich KC, Alexander AL, **Chapman BE**, Tsuruda JS, Glover GH. A Multislab Spiral 3D MR Angiography, 4th Scientific Meeting of the Society of Magnetic Resonance, New York, NY

1996 **Chapman BE**, Sanderson AR, Goodrich KC, Alexander AL, Blatter DD, Parker DL. A Two Alternative Forced Choice Evaluation of Blood Vessel Visibility in MR Angiograms, 4th Scientific Meeting of the Society of Magnetic Resonance, New York, NY

1996 **Chapman BE**, Sanderson AR, Goodrich KC, Alexander AL, Blatter DD, Parker DL. An ROC Evaluation of Blood Vessel Visibility in MR Angiograms Using Accurate Geometric Registration to High Resolution X-Ray Angiograms, 4th Scientific Meeting of the Society of Magnetic Resonance, New York, NY

1997 **Chapman BE**, Goodrich KC, Alexander AL, Blatter DD, Parker DL. A Contrast to Noise Ratio Evaluation of Small Cerebral Vessels in MR Angiography Using Various Reconstruction Techniques," 5th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Vancouver, British Columbia, Canada

1997 Parker DL, Goodrich KC, Buswell HR, Alexander AL, **Chapman BE**, Blatter DD. Optimized Visualization of Cerebral Vessels in G. Enhanced MRA, 5th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Vancouver, British Columbia, Canada

1998 Goodrich KC, Buswell HR, **Chapman BE**, Hadley JR, Roberts JA, Blatter DD, Fukuzaki J, Parker DL. MRA CNR Studies of Magnetization Transfer with a Temporal Lobe Phased Array Coil, 6th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Sydney, Australia

1998 **Chapman BE**, Goodrich KC, Alexander AL, Blatter DD, Parker DL. Constrained Reconstruction and Interpolation Effects on Vessel Visibility Measured with a Two Alternative Forced Choice Experiment, 6th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Sydney, Australia

1998 Parker DL, Goodrich KC, Buswell JR, Alexander AL, **Chapman BE**, Tsuruda JS, Blatter DD. Imaging Parameter Optimization in Gd. Enhanced MRA, 6th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Sydney, Australia

1998 Parker DL, Parker DJ, Anderson MD, Goodrich KC, Alexander AL, **Chapman BE**, Roberts JA, Hadley JR, Tsuruda JS. The Effects of Pulsatile Blood Flow in High Resolutions Time-of-Flight MRA, 6th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Sydney, Australia

1998 **Chapman BE**, Parker DL. Postprocessing Enhancement of Intracranial Vessels in 3D MRA, MR Angio Club, Park City, UT

1999 **Chapman BE**, Parker DL. Multi-scale Line Enhancement Filtering for Intracranial Magnetic Resonance Angiography, 7th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Philadelphia, PA

1999 **Chapman BE**, Parker DL. Detecting Misregistered Vessel Structures in Magnetic Resonance Angiography, 8th Far West Image Perception Conference, Morley, Alberta, Canada

1999 **Chapman BE**, Parker DL. Analysis of Multiscale Line Enhancement Filter Differentiation of Vessel and Background Voxels in Time-of-Flight MRA, 7th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Philadelphia, PA

1999 Hadley JR, **Chapman BE**, Roberts JA, Chapman DC, Goodrich KC, Buswell HR, Alexander AL, Tsuruda JS, Parker DL. A Three Coil Comparison for MR Angiography, 7th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Philadelphia, PA

1999 **Chapman BE**, Parker DL. Technical Image Quality Assessment of Rendering Techniques for Intracranial MRA, MR Angio Club, Lund, Sweden

1999 Parker DL, **Chapman BE**, Roberts JA, Alexander AL, Tsuruda JS. A Novel Image Segmentation and Display Technique: The Depth Buffer Segmentation (DBS) Algorithm, MR Angio Club, Lund, Sweden

2000 **Chapman BE**, Glastonbury CM, Moore KR, White DK, Parker D. A Comparison of Densiometric Projections with A Depth Buffer Segmentation to a MIP Display for Intracranial MRA, 8th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Denver, CO

2000 **Chapman BE**, Parker DL. Multi-scale Line Enhancement Filtering for Intracranial Magnetic Resonance Angiography: Comparison of Minimum Roughness and Maximum Curvature for Vessel Enhancement, 8th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Denver, CO

2000 Parker DL, **Chapman BE**, Roberts JA, Tsuruda JS, Schmidt RH, Parker JH. The Application of the Depth Buffer Segmentation (DBS) Algorithm in Magnetic Resonance Angiography and Computed Tomography, 86th Scientific Assembly of the Radiological Society of North America, Chicago, IL

2000 **Chapman BE**, Ogilvie J, Christian B, Parker DL. Accuracy of the Depth Buffer Segmentaiton Algorithm for Segmenting Intracranial Vessel from 3D Time-of-Flight MRA Images, 86th Scientific Assembly Radiological Society of North America, Chicago, IL

2000 Hutchings C, Buswell H, **Chapman BE**, Tsuruda JS, Schmidt R, Parker DL. Assessing the Adequancy of MRA for Planning Intracranial Aneurysm Clipping Surgery, 8th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Denver, CO

2001 **Chapman BE**, Parker DL. An Analysis of Vessel Enhancement Filters Based on the Hessian Matrix for Intracranial MRA, 9th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Glasgow, Scotland

2001 **Chapman BE**. Vessel Enhancement Filtering, MR Angio Club, Madison, WI

2002 **Chapman BE**, Mello-Thoms C. Image Misregistration and Lesion Signal-Difference-to-Noise Ratio Impact on Spectral Distance Images Formed from Multispectral Images, AMIA Annual Meeting, San Antonio, TX

2003 **Chapman BE**, Stapelton JO, Christian B, Hamilton B, Katzman GL, Moore KR, Tsuruda JS, Parker DL. Observer Evaluation of Intracranial Aneurysm Detection Using Z-Buffer Segmentation of 3D TOF MRA Images, 11th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Toronto, Canada

2003 **Chapman BE**, Yankelevitz DF, Henschke CI, Gur D. Simulations of the Impact of Imperfect Detection on theTemporal Dynamics of a Lung Cancer Screening Program, 9th International Conference on Screening for Lung Cancer, Miami, FL

2004 Lee WC, Tublin ME, **Chapman BE**. Retrospective Registration of Hepatic MR Images, 12th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Kyoto, Japan

2004 **Chapman BE**, Roberts JA, Parker DL. Preliminary Development of an Automated Analysis Tool for Intracranial MRA, 12th Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Kyoto, Japan

2004 **Chapman BE**, Parker DL. Statistical Properties of MIP Images Generated from MRA Images Processed with Vessel Enhancement Filters, AAPM Pittsburgh Meeting, Pittsburgh, PA

2004 **Chapman BE**. Using dynamic programming to extract vascular models from MRA image, MR Angio Club, London, Ontario, Canada

2006 **Chapman BE**, Marsh JW, Tublin ME. Quantifying MR Properties of the Cirrhotic Liver Using Explanted Specimens, ISMRM 14th Scientific Meeting & Exhibition, Seattle, WA

2007 **Chapman BE**, Peperzak K, Parwani A. Spatially Integrating Radiology and Pathology via a 3D Tissue Model, 12th Annual International Meeting and Exposition of the American Telemedicine Association, Nashville, TN

2008 Peperzak K, Eibling D, **Chapman B**. A Three-Dimensional Interactive Pathology Visualization System, 7th International Conference on Head and Neck Cancer, American Head and Neck Society, San Franciso, CA

2010 Wilson RA, Chapman WW, DeFries SJ, Becich MJ, **Chapman BE**. Identifying History of Ancillary Cancers in Mesothelioma Patients from Free-Text Clinical Reports, AMIA 2010 Annual Symposium, Washington, DC

2010 Lee S, Deible CR, **Chapman BE**. Assessing Hounsfield Units as a Basis for Artery-Vein Separation in Pulmonary CTA, AMIA 2010 Annual Symposium, Washington, DC

2010 Mowery D, Harkema H, **Chapman B**, Hwa R, Wiebe J, Chapman W. An Automated SOAP Classifier for Emergency Department Reports, AMIA 2010 Annual Symposium, Washington, DC

2011 **Chapman BE**, Lee S, Kang HP, Chapman WW. Using ConText to Identify Candidate Pulmonary Embolism Subjects Based on Dictated Radiology Reports, AMIA Clinical Research Informatics Summit 2011, San Francisco, CA

2011 **Chapman BE**. Integrating Images with Biomedical Data; part of Secondary Use of Medical Images: Opportunities for Informatics, AMIA 2011 Annual Symposium, Washington, DC

2011 Gentili A, **Chapman BE**. Use of pyConText to Classify Reports Containing Critical Results, RSNA 2011, Chicago. IL

2011 **Chapman BE**. The Varieties of Medical Images: A Research Perspective, iDASH Imaging Informatics Workshop, San Diego, CA

2012 **Chapman BE**, Dayton G, Chapman WW. Development of ConText Tools in Python, Clinical NLP Workshop, Stockholm, Sweden

2012 Zifan A, **Chapman BE**. Automatic Detection of Coronary Vessels Using Mutli-scale Texture Dictionaries, IEEE HISB 2012, La Jolla, CA

2012 **Chapman BE**, Wong M, Farcas C, Reynolds P. Annio: A Web-based Tool for Annotating Medical Images with Ontologies, IEEE HISB 2012, La Jolla, CA

2012 Ashfaq S, Gentili A, Chapman W, **Chapman B**. A Preliminary Approach for Creating a Semi-synthetic Multimodal Clinical Data Set from a Publicly Available Image Repository, AMIA 2012 Annual Symposium, Chicago, IL

2012 Gentili A, **Chapman BE**. Use of pyConText to Assist in Auditing for Chest Biopsy Complications, RSNA 2012, Chicago, IL

2012 **Chapman BE**, Wong M, Farcas C, Ohno-Machado L. iDASH and Imaging: Incorporating Radiological Data into an On-line Environment for Data Sharing and Analysis, Educational Exhibit, RSNA 2012, Chicago, IL

2012 **Chapman BE**. Data Repositories at iDASH, iDASH Imaging Informatics Workshop, San Diego, CA

2013 Zifan A, Ashfaq S, **Chapman BE**. Automatic Ventricle Chamber Segmentation Using a Regression Neural Network Initialization Based Active Shape Model, 2013 AMIA CRI Summit, San Francisco, CA

2013 Zifan, A, Ashfaq S, **Chapman BE**. Toward the Non-Invasive Detection of Pulmonary Hypertension using Discriminative Predictors, 2013 AMIA CRI Summit, San Francisco, CA

2013 **Chapman BE**, Chen J, Miyakoshi A, Chapman WW, Gentili A. Measuring How Perceived Meanings of Uncertainty Cues Differs with and Without Sentence-Level Context in Radiology Reports. RSNA 2013, Chicago, IL

2013 **Chapman BE**, Gentili A, Chen J, Miyakoshi A, Chapman W. Measuring Expressions of Uncertainty in Radiology Texts for Natural Language Processing Applications. RSNA 2013, Chicago, IL

2013 Gentili A, **Chapman BE**. Use of Natural Language Processing to Classify Radiology Reports Containing Description of the Abdominal Aorta. RSNA 2013, Chicago, IL

2013 Zifan A, **Chapman BE**. Rapid Medical Imaging Retrieval Using Lung Vasculature Traits. RSNA 2013, Chicago, IL

2015 **Chapman BE**. The Good, The Bad, and The Ugly: Using Natural Language Processing to Understand Information Content in Radiology Reports. RSNA 2015

2015 **Chapman BE**, Gentili A, Schulthies SL, Heilbrun ME. Lexical Disparities between Reports Authored by Residents and Reports Authored by Attending Radiologists Using Natural Language Processing. RSNA 2015, Chicago, IL

2016 Chapman BE, Brown L, Roberts JA, Fletcher T. 3D Shape Characterization of Vascular Remodeling in Pulmonary Arterial Hypertension As Depicted in Volumetric Ct Images. 2016 SIAM Conference on Imaging Science, Albuquerque, NM, USA. May 2016

2018 **Chapman BE.** Data science education, workforce development. Data Science Innovation at the Intersection of Biomedical Research and the Library. Bethesda, MD June 2018

2021 **Chapman BE**, Ziegenfuss DH. Getting Beyond the Memoir to an Autoethnography: Building on a Cancer Survivor Narrative Memoir. International Symposium on Autoethnography and Narrative. January 2021.

2021 **Chapman BE**. Autoethnography as Autodissection: Teaching Medical Informatics with a Personal Health Narrative. International Symposium on Autoethnography and Narrative. January 2021.

Invited/Visiting Professor Presentations

International

2011 **Chapman BE**. iDASH and Images: Working Towards a Complete Framework for Sharing Medical Data, University of Edinburgh, Edinburgh, United Kingdom

2017 Chapman WW and **Chapman BE.** Clinical NLP Master Class, Australian National University.

National

2003 **Chapman BE**. Principles of Magnetic Resonance Imaging, SMRT Northeast Regional Conference, Pittsburgh, PA

2005 **Chapman BE**. Principles of Magnetic Resonance Angiography, Medrad Corporation, Pittsburgh, PA

2005 **Chapman BE**. Principles of Magnetic Resonance Angiography, SMRT Northeast Regional Conference, Pittsburgh, PA

2006 **Chapman BE**. Making Radiology Quantitative: Plato vs. Aristotle, University of Utah, Department of Radiology

2009 **Chapman BE**. Pythagoras, Plato and Eratosthenes: Greek Models for Imaging Informatics, Arizona State University, Department of Biomedical Informatics

2010 **Chapman BE**. Pythagoras, Plato and Eratosthenes: Greek Models for Imaging Informatics, Oregon Health Sciences University, Department of Medical Informatics

2010 **Chapman BE**. Eratosthenes and Medical Imaging Informatics, University of California, San Diego, Division of Biomedical Informatics, Department of Medicine

2011 **Chapman BE**. Image Sharing with iDASH: Disrupting Data Ownership to Facilitate Imaging Research, FDA, Division of Imaging and Applied Mathematics, Silver Spring, MD

2012 **Chapman BE**. The Varieties of Biomedical Data: the iDASH Experiment (and a Tribute to William James), University of Utah, Salt Lake City, UT

2012 **Chapman BE**. If Pythagoras were a Physician: Reflections on the Philosophy and Practice of Medical Informatics, Bioinformatics and Systems Biology Seminar, University of California, San Diego, La Jolla, CA

2012 **Chapman BE**. Informatics Perspectives on Medical Imaging, Biomedical Informatics Seminar, University of California, San Diego, La Jolla, CA

2014 **Chapman BE.** Biomedical Informatics and Rebellion, Introduction to Health Informatics, University of Arizona.

2016 **Brian E. Chapman.** "Can I Learn from Big Data?" Western Society of Pediatric Cardiology. Park City, UT

2017 Chapman WW and **Chapman BE.** Clinical Natural Language Processing. Georgia Biomedical Informatics Course.

2018 **Chapman BE**. Informatics and Biomedical Data Science Training at the University of Utah
Incorporating Data Science Modules into Existing Informatics Courses. Biomedical Data Science Curriculum Initiative Working Group, Boston, MA (May 2018).

2018 **Chapman BE.** Biomedical Data Science Education at the University of Utah. Friends of the National Library of Medicine Conference. Bethesda, MD (June 2018).

2018 **Chapman BE.** Data Science Education in Biomedical Informatics. AMIA Informatics Educators Forum. New Orleans, LA (June 2018)

2018 **Chapman BE.** Teaching with JupyterHub. National Network of Libraries of Medicine. Salt Lake City, UT (November 2018)

2019 **Chapman BE.** From Radio Waves to Gamma Rays: A Spectral Analogy for Biomedical Data Science. Plenary Lecture, Informatics Day 2019. University of Pennsylvania (May 23, 2019)

2020 **Chapman BE.** Punk Informatics: Technology Evolutions and Empowerment of a Do-It-Yourself Health Professional. University of Melbourne (31 July 2019).

2022 **Chapman BE**. “Knowledge is Power; France is Bacon”, Tackling medicine’s paternalism problem. Plenary talk at Digital health Institute Summit. 22 February 2022, Melbourne, VIC, AU.

2022 **Chapman BE.** "Throw Some More Rights on the Barbie: A View from Down Under on Epistemic Rights and Informatics”. March 2022. IDEAS Seminar Salt Lake City VA. Salt Lake City, UT, US

2023 **Chapman BE**. "The varieties of healthcare experience: Pluralism, informatics, and consumer empowerment”. Keynote address at MedInfo 2023. Sydney, NSW, AU, July 2023.

2023 **Chapman BE.** “The Informatics Rebellion and the Patient Experience”. Department of Biomedical Informatics, University of Pittsburgh, Pittsburgh, PA, August 24, 2023.

2023 **Chapman BE** and D’Alfonso S. “Artificial Intelligence for Cancer Care and Research” VCCC Alliance Conference. Melbourne, AU, September 11, 2023.

2023 **Chapman BE.** “Thinking About Thinking with AI”. University of New Mexico, Albuquerque, NM, September 27, 2023.

2023 **Chapman BE.** “Sharing is Caring: A Patient Perspective”. Royal Women’s Hospital Grand Rounds, Melbourne, AU, October 4, 2023.

2023 **Chapman BE.** “A Very Brief History of Artificial Intelligence in Healthcare”. Health Equity Matters Generative AI Forum. Melbourne, AU, October 12, 2023.

2023 **Chapman BE.** "Thinking with Artificial Intelligence: Experiences from Healthcare”. Outcomes, Practice and Evidence Network. Melbourne, AU, October 25, 2023.

2023 **Chapman BE.** "Prometheus and the Patient Epistemic Rights and Epistemic Duties”. MCBK 2023

2024 **Chapman BE.** "Artificial Intelligence in Medicine: Context and Controversies”, Invited lecture for AI and Digital Ethics, University of Melbourne, May 16, 2024.

2024 **Chapman BE**. “Values, Metrics, and Impactful Medical Imaging Research”, Oak Ridge National Laboratory, May 24, 2024.

2024 **Chapman BE.** “Pushing Against Ignorance: Medical Informatics, Artificial Intelligence, and the Quest to Improve Healthcare”. Wake Forest University, May 30, 2024.

2024 **Chapman BE**. "The Journey of Digital Health to Date”. Thoracic Society of Australia and New Zealand Education Hub, Melbourne, October 11, 2024

2024 **Chapman BE.** “Pushing Against Ignorance: A Personal Perspective on Information Technology and the Transformation of Healthcare.” To be presented at the University of Tennessee, Memphis. November 1, 2024

2024 **Chapman BE**. "Pushing Against Ignorance: Technology and the Transformation of the Patient Experience” to be presented at THIS Space: Today’s challenges in responsible data science and healthcare innovation. Cambridge, UK. November 26, 2024.