

# 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**

<u>Years</u>	<u>Degree</u>	<u>Institution (Area of Study)</u>
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 Science

2009 — Present Member, Society for Industrial and Applied Mathematics, Activity Group on Imaging Science

2010 — Present Member, American Medical Informatics Association, Biomedical Imaging Working Group

2011 — 2013 2013 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 — Curriculum in Biomedical Big Data: Skill Development and Hands-On Training  
06/30-2019 (no cost continuation) 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 — Curriculum in Biomedical Big Data: Skill Development and Hands-On Training  
06/30-2019 (no cost continuation) Principal Investigators: Brian E. Chapman, Matthew Samore  
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National Institutes of Health  
Role: Co-Principal Investigator

09/30/2016 — Curriculum in Biomedical Big Data: Skill Development and Hands-On Training  
06/30-2019 (no cost continuation) 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 — High Resolution MRI for Carotid Disease  
07/31/20 Principal Investigator: Dennis Parker  
Direct Costs: \$1,800,000 Total Costs: \$2,682,000  
National Institutes of Health  
Role: Co Investigator

07/01/2018— Basic Data Science for Basic Scientists  
06/30/2019 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 De-  
tection  
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, Department 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
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### Department/Division Conferences

2009 — 2010	Journal Club Coordinator, First Year Students, Department of Biomedical Informatics, University of Pittsburgh, Pittsburgh, PA
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## **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 3<sup>rd</sup>, 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, Sciarba 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.
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- 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.

#### **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.

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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.
- 6 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, <b>Chapman BE</b> , Tsuruda JS, Glover GH. A Multislab Spiral 3D MR Angiography, 4th Scientific Meeting of the Society of Magnetic Resonance, New York, NY   |
| 1996 | <b>Chapman BE</b> , 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 | <b>Chapman BE</b> , 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 | <b>Chapman BE</b> , 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, <b>Chapman BE</b> , 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, <b>Chapman BE</b> , 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                           |
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| 1998 | Parker DL, Parker DJ, Anderson MD, Goodrich KC, Alexander AL, <b>Chapman BE</b> , 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 Densitometric 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
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- 2000            Hutchings C, Buswell H, **Chapman BE**, Tsuruda JS, Schmidt R, Parker DL. Assessing the Adequacy 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 the Temporal 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 Francisco, 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
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- 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. Anno: 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.