

- EDUCATION**
- University of Rochester** August 2020 - Present  
Ph.D. in Computer Science  
Advisor: Dr. Zhen Bai
- Rochester Institute of Technology** May 2020  
Bachelor of Science, Computer Science - *Cum Laude*  
Minor: Mathematics  
Full Time Research: Fall 2019, Spring 2018
- RESEARCH EXPERIENCE**
- ROHCI Group** - Dr. Zhen Bai June 2020 - Present  
University of Rochester, Rochester, NY
- Building novel interfaces for behavior modeling to support language learning (English and American Sign Language) and parent-child interactions.
  - Developed Machine Learning and Computer Vision methods for predicting the diagnostic probability and severity of Movement Disorders (Parkinson's disease and Ataxia).
- Future Interfaces Group** - Dr. Chris Harrison May 2020 - April 2021  
Carnegie Mellon University, Pittsburgh, PA
- Created software pipelines, comprised of deep learning and statistical models, for modeling human motion interaction using input from infrared depth sensors, beyond their 3 meter limit.
  - Resulting Publication won best paper award at ACM SUI Conference
- Independent Study** - Dr. Christopher Homan September 2017 - August 2020  
Rochester Institute of Technology, Rochester, NY
- Built deep learning models to understand how behavior spreads between user connections on social media sites and implemented an embedding scheme to train a deep learning model with the additional context of the user's mental state when posting online.
  - Independent Study: Autumn 2017, Autumn 2018, Spring 2019
  - Full Time Research (Co-Op): Autumn 2019
- MIT Summer Research Program** - Dr. Alex Pentland Summer 2019  
Massachusetts Institute of Technology Media Laboratory, Cambridge, MA
- Created a decentralized auditing tool for a data privacy protocol (OPAL) and designed a case study system that used the protocol with the Argos Simulation software for robot based inference.
- NASA Jet Propulsion Laboratory** - Dr. Adrian Stoica Summer 2018  
California Institute of Technology, Pasadena, CA
- Designed and implemented a deep learning model in Tensorflow for predicting seismic movements over a time series and modeling Human-Robot Interactions
- MIT Summer Research Program** - Dr. Andrew Lippman Summer 2017  
Massachusetts Institute of Technology Media Laboratory, Cambridge, MA

- Worked in the Viral Communications group on applications of cryptocurrencies and using text analysis algorithms to discern bias in news articles

**Future Everyday Technology Research Lab** - Dr. Daniel Ashbrook  
Rochester Institute of Technology, Rochester, NY May 2016 - June 2018

- Used statistical machine learning and audio analysis techniques for sound based interaction and measurement with materials of varying attributes.
- Independent Study: Summer 2016, Autumn 2016, Spring 2017, Autumn 2017
- Full Time Research (Co-Op): Spring 2018

**REFEREED  
CONFERENCE  
PAPERS**

Vivian Shen, **James Spann**, Chris Harrison. **FarOut: Extending the Range of ad hoc Touch Sensing with Depth Cameras** *Proceedings of the ninth ACM Symposium on Spatial User Interaction (ACM SUI)*, 2021 [Won Best Paper Award]

Md. Kamrul Hasan, **James Spann**, Masum Hasan, Md. Saiful Islam, Kurtis Haut, Rada Mihalcea, Ehsan Hoque. **Hitting your MARQ: Multimodal ARgument Quality Assessment in Long Debate Video** *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2021

**PEER  
REVIEWED  
WORKSHOPS**

**James Spann**, Pratik Bongale, Chris Homan. **(Un)certainity selection methods for Active Learning on Label Distributions** *15th International OPT Workshop on Optimization for Machine Learning, NeurIPS*, 2023

**HONORS AND  
AWARDS**

Heidelberg Laureate Forum - Young Researcher	2022
ACM Symposium on Spatial User Interaction (ACM SUI) - Best Paper Award	Autumn 2021
Richard Tapia Celebration of Diversity in Computing Conference Scholarship - <i>Jane Street Scholar</i>	Autumn 2021
The National GEM Consortium - GEM Associate Fellow	2020 - 2022
National Science Foundation - Research Traineeship Fellowship	2020 - 2021
University of Rochester - Provost's Fellowship (Deferred until Autumn 2021 for the NSF Trainee Fellowship)	2020 - 2022
RIT McNair Scholar	(4 semesters) 2018-2020
RIT Tiger Tank Business Competition Finalist	2019
California Institute of Technology SURF Fellow	2018
First place award - University of Rochester Spring DandyHacks Hackathon	2018

**TEACHING  
EXPERIENCE**

**Intro to Programming (CSC 161)** - Teaching Assistant Autumn 2021, Spring 2022

- Maintained office hours for student assistance, managed and participated in exam grading sessions with other TAs, and helped write course content for exams and projects.

**Upward Bound Math/Science Program** - Teacher Summer 2021, Summer 2022

- Designed and taught intro Computer Science lectures as a part of the University of Rochester's Summer 2021 Upward Bound program for Rochester high school students. Created and supervised weekly hands-on example activities, and demonstrated various programming techniques.

**Data Management Systems (CSC 263/463)** - Student Grader Spring 2021

- Graded student exams and assignments.

**Principles of Data Mining (CSCI 420)** - Student Grader Spring 2020

- Graded student quizzes and held weekly office hours.

**INVITED  
TALKS**

**Graduate Student Panel**  
GEM Grad Lab - University of Rochester 2023

**Assisting Doctors with Movement Disorder Diagnosis using AI**  
Graduate Research Day - University of Rochester 2022

**Assisting Doctors with Movement Disorder Diagnosis using AI**  
NSF-NIH Smart and Connected Health workshop - Washington State University 2022

**Research workflows with Jupyter and Conda**  
PhD #Shots - Rochester Institute of Technology, Rochester, New York 2022

**OPAL and Robots Or How I Stopped Worrying And Learned to Algorithmically Trust**  
MIT Media Lab, Cambridge, Massachusetts 2019

**Detecting bias through user interaction**  
MIT Media Lab, Cambridge, Massachusetts 2017

**Knock on Wood Sensor**  
RIT Undergraduate Research Symposium, Rochester, New York 2016

**SELECTED  
POPULAR  
PRESS**

[Discover Something New at Imagine RIT](#) 2019  
[The secret lives of students who mine cryptocurrency in their dorm rooms](#) 2018  
[A season of learning at the Lab](#) 2017

**ACADEMIC  
ACTIVITIES**

**Journal Reviewer:** Journal on Multimodal User Interfaces

**Conference Reviewer:** ACII'21,23; CHI'23; CHI LBW'23; Ubicomp'23

**University of Rochester School of Arts,  
Sciences & Engineering - Conference Grant**

**Reviewer:**

Winter 2021, Spring 2022

**MIT Summer Research Program  
Application Review Committee:**

2021, 2022, 2023

**ACTIVITIES**

Graduate Students of Color	August 2020 - Present
Computer Petting Zoo Exhibitor	May 2019 - June 2020
Stanford SERGE	October 2019
McNair Scholars Program	2018-2020
MIT Media Lab Digital Currency Initiative Bootcamp	Summer 2016
RIT Data Science Research Group	2016-2020
Louis Stokes Alliances for Minority Participation (LSAMP)	2018-2020
Multicultural Center for Academic Success Program	2015-2020
RIT No Voice Zone	2015-2020
RIT Go Club	2018-2020
RIT Fencing Club	2015-2017

**STUDENTS  
SUPERVISED**

Sarah Chen, B.A. Psychology, U of R

Spring 2022-Fall 2022

## REFERENCES

**Dr. Zhen Bai**

Associate Professor of Computer Science, Department of Computer Science  
University of Rochester

**Dr. Ehsan Hoque**

Associate Professor of Computer Science, Department of Computer Science  
University of Rochester

**Dr. Chris Harrison**

Associate Professor of Human Computer Interaction, Department of Computer Science  
Carnegie Mellon University

**Dr. Christopher M. Homan**

Associate Professor, Department of Computer Science  
Rochester Institute of Technology

**Dr. Daniel Ashbrook**

Associate Professor, Department of Computer Science  
University of Copenhagen

**Dr. Alex Pentland**

Professor of Media Arts and Sciences  
Massachusetts Institute of Technology - Media Laboratory

**Dr. Andrew Lippman**

Professor of Media Arts and Sciences  
Massachusetts Institute of Technology - Media Laboratory

**Dr. Adrian Stoica**

Senior Research Scientist  
National Aeronautics and Space Administration - Jet Propulsion Laboratory