

EDUCATION	University of Rochester Ph.D. in Computer Science Advisor: Dr. Zhen Bai	August 2020 - Present
	Rochester Institute of Technology Bachelor of Science, Computer Science - <i>Cum Laude</i> Minor: Mathematics Full Time Research: Fall 2019, Spring 2018	May 2020
RESEARCH EXPERIENCE	ROCHCI Group - Dr. Zhen Bai University of Rochester, Rochester, NY	June 2020 - Present
	<ul style="list-style-type: none">• 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 Carnegie Mellon University, Pittsburgh, PA	May 2020 - April 2021
	<ul style="list-style-type: none">• 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 Rochester Institute of Technology, Rochester, NY	September 2017 - August 2020
	<ul style="list-style-type: none">• 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 Massachusetts Institute of Technology Media Laboratory, Cambridge, MA	Summer 2019
	<ul style="list-style-type: none">• 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 California Institute of Technology, Pasadena, CA	Summer 2018
	<ul style="list-style-type: none">• 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 Massachusetts Institute of Technology Media Laboratory, Cambridge, MA	Summer 2017

- 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**

James Spann, Sarah A. Chen, Ehsan Hoque. **Getting on the Right foot: Using observational and quantitative methods to evaluate movement disorders to appear in** *Proceedings of the 29th ACM Conference on Intelligent User Interfaces (ACM IUI)*, 2024

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** to appear in *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

Assistant 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