

# Fahad Kamran

*Curriculum Vitae*  
*Computer Science PhD Student*

## PERSONAL DETAILS

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## EDUCATION

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**PhD in Computer Science** 2018-Present

*University of Michigan*

- ◇ Second year PhD Student
- ◇ Advisor: Professor Jenna Wiens
- ◇ Research focus: Intersection of machine learning and healthcare
- ◇ Specific research topics: Causal inference, survival analysis, wearable sensors, sports analytics

**Bachelors Degree** 2014-2018

*University of California, Berkeley*

- ◇ Graduated with degrees in Mathematics, Statistics, and Computer Science
- ◇ Final cumulative GPA: 3.80
- ◇ Awarded the Campus Outstanding GSI Award
- ◇ Awarded the Computer Science Outstanding Teaching and Leadership Award

**High School Diploma** 2010-2014

*Centerville High School*

- ◇ Graduated from Centerville High School with an Honors Diploma
- ◇ Completed high school as a National AP Scholar

## WORK EXPERIENCE

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**Graduate Student Research Assistant** 2018-

*University of Michigan CSE Department*

- ◇ Advised by Professor Jenna Wiens
- ◇ Main research focuses include adapting recent advancements in the field of machine learning in order to build novel algorithms in causal inference and survival analysis
- ◇ Other areas of interest include sports analytics and combining data obtained from wearable sensors with machine learning in order to detect and prevent physiological harm

**Undergraduate Deep Learning Research** 2015-2018

*UC Berkeley EECS Department*

- ◇ Worked with Yusuf Bugra Erol and Pulkit Agarwal on applying deep learning techniques to physiological time-series data
- ◇ Entered the PhysioNet CinC Challenges for 2016 and 2017 and worked with using convolutional neural networks and recurrent neural networks to classify heartbeats as either normal or abnormal

- ◇ Used state of the art audio architectures (*e.g.* Wavenet) on EKG data in order to build useful representations for downstream classification

### **Data Analyst Intern**

2017

84.51°

- ◇ Interned at a data analytics firm, doing work for the parent company Kroger/Ralphs.
- ◇ Read in large amounts of customer purchasing behavior and applied various machine learning algorithms to learn the most important customer traits
- ◇ Used these customer traits to determine what sort of coupon offers should be sent to specific customers
- ◇ Introduced natural language processing (NLP) to the company by creating an introductory guide to NLP, a python tutorial teaching the most important libraries for language analysis, and implemented a script to read in comments from online sources and learn overall customer sentiment

## **TEACHING EXPERIENCE**

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### **Graduate Student Instructor**

2019

*Introduction to Artificial Intelligence, University of Michigan*

- ◇ Part of a 4 person course staff teaching the course
- ◇ Main responsibilities include preparing for and leading discussion sections, creating homework assignments, and reviewing and grading exams
- ◇ In charge of communicating with course graders and monitoring and answering questions on the course forum
- ◇ Given two lectures to the full course on the topics of game theory and search algorithms

### **Big Data Summer Institute Lecturer**

2019

*School of Public Health, University of Michigan*

- ◇ Instructed a group of public health undergraduates through a self-made Python tutorial as part of the Big Data Summer Institute at the University of Michigan

### **Course Instructor**

2018

*Foundations of Data Science, UC Berkeley*

- ◇ Co-instructed a university course for roughly 250 students in a summer session
- ◇ Main responsibilities included preparing for and leading lecture, organizing staff, creating worksheets, assignments, exams, and dealing with day to day infrastructure and logistics to keep the course running
- ◇ Created student projects from scratch to best grow the course into an ideal learning experience for students

### **Head Teaching Assistant**

2016-2018

*Foundations of Data Science, UC Berkeley*

- ◇ Spent four semesters as one of the head TAs
- ◇ Main responsibilities included teaching sections and holding office hours
- ◇ Additional tasks I took included organizing course staff, creating the website, organizing tutoring, and creating large portions of the curriculum
- ◇ Currently handling and automating the grading process

### **Teaching Assistant**

2016

*Introduction to Artificial Intelligence, UC Berkeley*

- ◇ Was part of a small, 6 person course staff teaching the course over the summer
- ◇ On top of discussions and office hours, I created and edited discussion worksheets and held periodic course reviews

**Teaching Assistant** 2017

*Data Structures and Algorithms, UC Berkeley*

- ◇ TA'd for the second introductory computer science course when roughly 1500 students were enrolled
- ◇ Along with basic duties, I organized tutoring sections and dealt with all grading compilation and regrade requests
- ◇ Co-taught one lecture during the semester

**Machine Learning Lecturer** 2017

*Practice Data Science Skills for Internships, UC Berkeley*

- ◇ Designing my own curriculum and teaching the machine learning portion of a student created course
- ◇ My lectures focus on the introduction to popular algorithms and their applications and implementations in industry

## **EXTRACURRICULARS**

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**Social Hour Chair** 2019

*Computer Science and Engineering Graduate Student Organization, University of Michigan*

- ◇ Member of the board of the organization overseeing all computer science graduate students
- ◇ Organize, host, and plan weekly social hours for graduate students to provide relaxation and stress relief
- ◇ Contribute to large scale decisions regarding community building among computer science graduate students

**Founder** 2019

*CSEG Wellness, University of Michigan*

- ◇ Founder and leader of an organization to provide peer-to-peer emotional support to graduate students in need in computer science
- ◇ Host events to provide wellness awareness and allow students to be part of a larger community

**President** 2016-2017

*Computer Science Mentors, UC Berkeley*

- ◇ Remained president of an organization which is devoted to easing the rigor of introductory computer science courses for one year
- ◇ Created close ties with the computer science department, introduced a new course to provide mentoring for, and began sections aimed towards specific groups of students who were having an especially difficult time transitioning
- ◇ Currently remain on the executive board and continue mentoring for courses

**Peer Advisor** 2016-2017

*UC Berkeley Mathematics Department*

- ◇ Held office hours weekly to provide an outlet for students who were considering majoring in mathematics and had questions
- ◇ Held mass advising sessions where I would lead discussions on the courses that were occurring in the next semester

## **PUBLICATIONS**

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- [1] Caleb Belth, **Fahad Kamran**, Donna Tjandra, and Danai Koutra. "When to Remember Where You Came from: Node Representation Learning in Higher-order Networks." Proc. of International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2019). IEEE/ACM. 2019.