Aarash Heydari

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Education

- **University of California, Berkeley** — Berkeley, CA
  Bachelor of Arts in Computer Science; GPA: 3.73 — *Aug. 2015 – May 2019*

Experience

- **Microsoft, Azure Identity** — Redmond, WA
  Software Engineer Intern — *May 2018 - Aug. 2018*
  - **Online Directory Service**: Used Azure Functions to automate the distributed configuration management infrastructure of a global, mission- critical LDAP service to minimize errors and save time for other engineers.
- **Datalogue** — Montreal, Quebec
  Back-end Software Engineer Intern — *May 2017 - Aug. 2017*
  - **Tools for Data Scientists**: Startup building AI powered pipelines that prepare any data from any source for immediate and compliant use. Worked on data preparation problems from Fortune 500 client companies.
  - **Transcoders**: Contributed to back-end Scala API that accepts datasets in any common format to reactively deliver massive processing power. Built transcoders for JSON, Microsoft Excel, XML, and MongoDB.
- **TA / Undergraduate Student Instructor** — Berkeley, CA
  Course Instructor for three classes over the last four semesters — *Jan. 2017 - Dec. 2018*
  - **CS170, Efficient Algorithms and Complexity Theory (Current)**: Lead weekly recitations teaching students algorithm strategies such as Divide and Conquer, Graphs, Dynamic Programming, Max Flow, etc.
  - **CS188, Artificial Intelligence (Fall '17)**: Teach students traditional AI techniques for various problem types such as Search, Neural Nets/Back-propagation, Reinforcement Learning, Markov Decision Processes, etc.
  - **CS61B, Data Structures and Algorithms (Spring '17)**: Guide students in the fundamental principles of data organization, complexity, sorting algorithms and software engineering in Java.

Research

Deep Learning for Biomedical Imaging — UCSF Radiology and Biomedical Imaging Department
Advised by Professor Youngho Seo — *Sept. 2018 - May 2019*

- **Weekly literature review**: Discuss research papers and fundamental concepts in machine learning.
- **Breast Cancer detection**: Used the ResNet architecture to predict breast density from CT Scans.
- **Lung Cancer in 3D Chest CT**: Localizing lung nodules, tracking change over time, and characterizing risk of cancer.

Fake News and Misinformation — UC Berkeley
Advised by Professor Gireeja Ranade — *Feb. 2018 - Present*

- **Data Collection**: Used Youtube APIs to collect and analyze data on comments in falsified media coverage. Writing a white paper to share our data collection methods and findings.

Projects

- **Deep Neural Structure from Motion**: Improved an existing state-of-the-art CNN architecture on the Computer Vision task of Single-View Depth Estimation in Tensorflow (tf-slim). Wrote a research paper on our findings.

Relevant Coursework

- **Systems**: Computer Security, Operating Systems, Internet Architecture and Protocols, Computer Architecture
- **Artificial Intelligence**: (* = Graduate Level) Machine Learning*, Computer Vision*, AI, Data Science, Designing/Visualizing/Understanding Neural Nets*, ML for Sequential Decision-Making under Uncertainty*

Skills

- **Technologies**: Python, Java, C, Scala, C#, Git, Unix, Tensorflow
- **Other**: Farsi, French, Piano, Jazz Drums, Eagle Scout