AARASH HEYDARI

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EXPERIENCE

Software Engineer Intern

Microsoft, Azure Identity / Online Directory Service

05/2018 - 08/2018 Redmond, WA

Automated the distributed configuration management infrastructure of a global, mission-critical service for Microsoft Cloud and Identity Access Management to conserve the time and attention of other engineers.

Undergraduate Student Instructor

UC Berkeley Course Staff

01/2017 - Ongoing

Since Spring 2017, I have been a TA for three different classes.
I will be teaching CS170 for a second time in Fall 2018.

- CS170: Algorithms and Complexity
  Teach students fundamental algorithms such as Divide and Conquer, Graphs, Dynamic Programming, Linear Programming, etc. and introduce core concepts in complexity theory.
- CS188: Artificial Intelligence
  Teach students traditional AI techniques for various problem types (i.e. Neural Nets/Back-propagation, Reinforcement Learning, Naive Bayes, Search, Game Trees, Markov Models, Bayes Nets, Probability)
- CS61B: Data Structures and Algorithms
  Guide students in the fundamental principles of data organization, complexity, and software engineering in Java.

Back-end Software Engineer Intern

Datalogue

05/2017 - 08/2017 Montréal, Quebec

NYC-based startup building AI powered pipelines that automatically prepare any data from any source for immediate & compliant use.

- Worked on data preparation problems behested by billion-dollar client companies in various fields (i.e. Pharmaceuticals, Finance)

RESEARCH

Fake News and Misinformation

Advised by Microsoft Researcher / Berkeley Professor Gireeja Ranade

02/2018 - Ongoing

Using Youtube APIs to collect and analyze data on comments in falsified media coverage to draw insights about viral conversations and explore how to mitigate new threats posed to the information ecosystem.

PROJECTS

Deep Neural Structure from Motion

02/2018 - 05/2018

Worked with a partner to improve the empirical performance of a state-of-the-art neural net on the Vision task of Single-View Depth Estimation.

- Modified the architecture by inserting a pre-trained Mask R-CNN, which performs object instance segmentation in images.
- Designed a new segmentation loss term to fine-tune the baseline model.
- Wrote a research paper on our findings.

Picasso/Anduin

05/2017 - 08/2017

Contributed to back-end Scala API that accepts datasets of arbitrary size, type, and format and reactively delivers massive processing power.

- Built high-performance, widely expressive data structures using functional Scala
- Built transcoders for JSON, Microsoft Excel, XML, MongoDB, and PostgreSQL.
- Integrated my work into an HTTP server with streamed data processing pipeline services

EDUCATION

Computer Science

University of California, Berkeley

08/2015 - 05/2019

GPA **3.78** / 4

TECHNOLOGIES

Python, Java, Scala, C, C#, Git

COURSES

Efficient Algorithms and Complexity **Machine Learning**

Operating Systems **Computer Vision** **Data Science**

Designing/Visualizing/Understanding Neural Nets

Artificial Intelligence **Information Devices and Systems**

Computer Architecture **Discrete Math/Probability Theory**

Linear Algebra **Advanced Linear Algebra**

Data Science and the Mind **Data Structures + Algorithms**

Computer Security **Internet Architecture**