Kaahan Radia

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Education

2017–2021	**B.A. Computer Science**, *University of California, Berkeley*. GPA: **3.52**
Classes	CS61A: **A** CS61B: **A** EE16A: **A-**

Experience

2017–Present   Research Assistant, *RISELab*, Berkeley.

Working with the Ray team to create and implement various Reinforcement Learning algorithms and supporting systems under Richard Liaw, Eric Liang, and Ion Stoica

- Reviewed and engineered improvements to Stack Neural Module Network, a fully differentiable approach to the Visual Question Answering task (Computer Vision)
- Implemented various scheduling algorithms (like Population Based Training from Google) under the Ray system (using Python, Tensorflow, and Java) to increase the efficiency of hyper-parameter search; Implemented models like LSTM
- Worked with Berkeley DeepDrive to create robust solutions to RL driving (on the Carracing-v0 toy problem):
  - Engineered custom OpenAI Gym wrappers to simulate noise and other debugging factors;
  - Created custom network architecture and losses that improved on most existing solutions, while coming close (within 100 reward) to the highest achieving algorithms in this environment

2018   Machine Learning Research Intern, *Ericsson*, Santa Clara.

Worked to create a distributed information system to efficiently pass information to thousands of reinforcement learning agents to train online in parallel

- Designed system from ground up, including algorithms to group similar nodes (agents), schedule information distribution, and the basic reinforcement learning agents themselves.
- Worked with a team of three, created and presented information system as well as the results and scalability of the entire venture

2016   Graph Engineer, *Naval Postgraduate School*, Monterey.

- With supervising professor, worked on creating a novel unsupervised algorithm to classify unlabeled or mislabeled networks that was 10% more accurate that solutions at the time
- Implemented and tested a method of identifying malicious nodes within social network graphs

Projects

2017   Discount Cooking, *Swift, iOS*, github.com/kaahan/discountcooking.

An app that creates a more personal connection between restaurants and their customers through exclusive recipes, and coupons on completion of said recipes

2018   Playlist DJ, *Javascript, Python, Web*, kaahan.pythonanywhere.com.

Created a tool for Spotify users that allows them to sort playlists according to different attributes of songs within, uses graph approximation, a NoSQL database, improvements on existing object sorting algorithms, and UI/UX design

Skills

Languages	Python, CSS, HTML, Javascript, Java, Swift, C++, Lisp, SQL
Libraries	Ray, Tensorflow, Numpy, Scikit-Learn, Plotly, React, Node.js