Nithin Raghavan

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EDUCATION

University of California, Berkeley (Class of 2020) *Aug 2017 – present*
Computer Science *Bachelor of Arts*, Applied Mathematics *Bachelor of Arts* (*GPA: 3.687*)

- CS61B: Data Structures
- CS170: Efficient Algorithms
- EE127: Optimization Models and Applications
- Blockchain for Developers
- Math 126: Partial Differential Equations
- CS70: Discrete Maths and Probability

Georgia Institute of Technology *Aug 2015 – May 2017*
Courses Taken while in High School

- Applied Combinatorics
- Number Theory and Cryptography

EXPERIENCE

→ **RISE Lab, UC Berkeley** *Jun 2018 – present*

- Working on data visualization for Cirrus, a serverless machine learning framework
- Currently utilizes virtual machines, but progressing towards using AWS Lambdas for tasks such as efficiently optimizing hyperparameters

→ **IBM Almaden Research Center, Machine Learning Laboratory** *Jul 2017 – Aug 2017*

- Trained an artifical neural network with visual and spatial reasoning abilities on Stanford's CLEVR dataset
- Used Tensorflow and Keras to create sequence autoencoders, CNNs and LSTMs

→ **Georgia Institute of Technology School of Aerospace Engineering** *Sept 2016 – May 2017*

- Helped research the development of high-bandwidth, high-efficiency methods of wireless energy transfer
- Proposed circuits with millimeter waves and Fabry-Perot resonators to increase efficiency up to 90%

PROJECTS

→ **Resource-Provisioning GPU Server** *Dec 2017 – present*

- Helped develop, and currently maintain, a program and Python-based shell to automate on-demand request processing and resource provisioning in a GPU + CPU cluster
- Uses Slurm for cluster management, and deploys tasks in Docker containers

→ **TaxiFindMe** *Apr 2018*

- Routing app that helps New Yorkers find the best spot to minimize taxi waiting time, taking into account travel time and time of day
- Preprocessed a taxi dataset with the k-means machine learning algorithm; utilizes KNN from an input location to find nearest cluster.

→ **ShirtMapper** *Jan 2018*

- App that resizes images of custom shirts and maps them onto people
- Utilizes OpenCV and Scipy, and uses Haar classifiers for edge detection; frontend employs React Native.

ADDITIONAL SKILLS

Awards: Exploravision National Contest *2016*

- Wrote a paper proposing blockchain's potential link to autonomous vehicles, and won honorable mention.

Frameworks/Softwares: Numpy, Scipy, Pytorch, Git, Unity3D, Docker, Slurm, Ethereum, ta-lib
Programming Languages: Python, Java, C, C++, C#, Bash, LaTeX, SQL, JavaScript, Solidity
Operating Systems: Unix-like systems (Linux, FreeBSD, Mac OS X), Windows
Certifications: Android Development (University of Maryland through Coursera)