Nithin Raghavan

(678) 200-5839
rnithin@berkeley.edu
rnithin1 (Github)
linkedin.com/in/nithinraghavan

EDUCATION

University of California, Berkeley
Computer Science, *Intended Bachelor of Arts*, Physics *Intended Minor*

- CS61A: Structure and Interpretation of Computer Programs
- Blockchain Fundamentals
- Physics 5A: Introductory Mechanics and Relativity
- Astronomy 84: Black Holes
- CS61B: Data Structures
- CS70: Discrete Mathematics and Probability Theory

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

- Linear Algebra
- Multivariable Calculus
- Applied Combinatorics
- Number Theory and Cryptography

Awards: Exploravision National Contest *2016*
Wrote a paper proposing blockchain's potential link to autonomous vehicles, and won honorable mention.

EXPERIENCE

IBM Almaden Research Center, Machine Learning Laboratory *August 2017*
Used Tensorflow and Keras to create a neural network using the bag-of-words approach (SA + LSTM + CNN + BoW) in order to analyze visual reasoning abilities on the CLEVR dataset. This encouraged complex reasoning in response to sophisticated English questions.

Georgia Institute of Technology School of Aerospace Engineering *September 2016 – May 2017*
Helped research the development of high-bandwidth, high-efficiency methods of energy transfer using millimeter waves, involving proposed circuits which have the potential to increase efficiency of wireless energy transfer up to 90%. Shadowed professors and graduate students working on wind tunnels.

Georgia Institute of Technology School of Physics *May 2016 – July 2016*
Shadowed professors and graduate students researching the potential impacts of the September 2015 LIGO sighting of gravitational waves. Worked with the Einstein toolkit to model relativistic astrophysical phenomena.

SKILLS

Frameworks: Numpy, Scipy, Pytorch, Keras, Cactus
Computer Languages: Python, Java, C, C#, CLisp, Mathematica, Bash, LaTeX, SQL, JavaScript
Operating Systems: Unix-like systems (Linux, FreeBSD), Windows, Mac OS X
Certifications: Android Development (University of Maryland through Coursera)
Languages: English, Spanish, Tamil

PROJECTS

Resource-Provisioning GPU Server *December 2017 - present*
Currently developing a Python-based shell and program to automate on-demand request processing and resource provisioning in a GPU/CPU cluster for UC Berkeley use. Uses Apache Mesos/Spark for cluster management, and deploys tasks in Docker containers.

Using Keras on CLEVR Dataset to Test Visual Reasoning Prowess *August 2017*
Used the Keras API to act on the CLEVR dataset to test artificial neural network visual reasoning abilities.