Adithya Raghunathan

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EDUCATION

Duke University, Pratt School of Engineering *Expected Graduation: May 2018*

MAJOR: BSE, Electrical & Computer Engineering & BS, Computer Science (Double Major)

CURRENT CUMULATIVE GPA: **4.0** (Dean's List With Distinction, All Semesters)

STANDARDIZED TESTING SCORES: SAT 1 – 2340, SAT II (Subject Tests) – 2400

RELEVANT COURSEWORK (Refer to Transcript for Full Coursework): Data Structures & Algorithms (Java), Artificial Intelligence (Python), Computer Architecture (C, MIPS), Microelectronics, Digital Systems (Verilog), Operating Systems (Unix, C, C++); Current: Distributed Information Systems (Scala), Design & Analysis of Algorithms, Integrated Circuits

TECHNICAL SKILLS

PROGRAMMING LANGUAGES: Java (Proficient), Python (Proficient), JavaScript (Proficient), Unix (Proficient), Git (Proficient), MATLAB (Proficient), MIPS Assembly (Proficient), Verilog (Proficient), C (Proficient), C++, Arduino, SQL

FRAMEWORKS & SKILLS: NodeJS, Angular JS & Express, Ruby on Rails, Selenium Webdriver, Web Scraping

GitHub: https://github.com/Adithya93

Website: https://adithya93.github.io/

WORK EXPERIENCE

- Software Engineer Intern, *Yahoo* – Enhancing tail-tolerance of distributed system *Summer 2016*
  - Design, implement and test *request-filter* middleware plugin (Speculative Retry) in Java
  - Reduce error-rate (408 & 5xx errors) by ~ 30% and cut 99.9th percentile latency by ~40% for YQL+ apps
  - Gain proficiency in multi-threading, UNIX scripting and *Agile development* (CI/CD pipeline, TDD, etc)
- Machine Learning Associate Intern – Newcleus Predictive Analytics – Singapore *Summer 2015*
  - Developed a library of programs in Python, JavaScript (NodeJS & Selenium Webdriver) and R to obtain, integrate and process comprehensive information about business leads for augmenting Machine Learning algorithms
- Teaching Assistant – Duke Computer Science Department – Computer Architecture *Spring 2016*
  - Lead recitations for class of 20 – 40 undergraduate CS students
  - Answer students' questions through in-person office-hours and online forums
  - Help students debug C, Java, Logisim & MIPS programming assignments
  - Collaborate with graduate students to develop programming and theory assignments

PERSONAL PROJECTS

- *Ulysses* : A web app for making *Ulysses Contracts* with others – built with NodeJS & MongoDB *In Progress*
- *OpenWebChat* : Web chat app built with NodeJS & Socket.io *In Progress*
- *Galaga :* 2D shooting game built on own 5-stage pipelined processor with Verilog & MIPS Assembly *Spring 2016*
- *Ascent Debate* : Web Portal for Debate Tutoring *Spring 2016*
  - Developed individually with NodeJS, AngularJS, Redis Server, Heroku and add-ons such as SendGrid
- Duke Student Government Software Task Force *Spring 2016*
- *Grid-Independent ATM*: Developed back-end & implemented asymmetric cryptography *Fall 2015*
  - Group project addressing inequality and poverty in rural villages of 3rd world countries
- *Foodpoints+* App using NodeJS – Currently 250+ users (foodpoints.herokuapp.com) *Fall 2015*
  - Used by Duke students to monitor and budget their food points, as well as favorite foods
- *DataFest*: Analyzed *Edmunds*' transaction data using R and Gravity Model *Spring 2015*
- Hack Duke: Team built heat-map of *Yik-Yak* activity on college campuses with Python & JavaScript *Fall 2014*

RESEARCH PROJECTS

- *UAV Drone Hacking Simulator* (Embedded Systems) – *Duke Cyber-Physical Systems (CPS)* Laboratory *Fall 2016*