Shyam Thiagarajan

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EDUCATION

THE OHIO STATE UNIVERSITY
BS in Computer Science & Engr.
Expected May 2019 | Columbus, OH
Cum. GPA: 3.86 / 4.0
Conc. in Software Engineering
College of Engineering

HONORS
Dean's List (All Semesters)
Full Tuition Scholarship
National AP Scholar
Winner of 2016 OHI/O Hackathon

EXTRACURRICULAR
Society of Hispanic Professional Engineers
Minority in Engineering Program
Collegiate Web Developer's Club
Open Source Club

SKILLS

SOFTWARE SKILLS
Proficient
Java • C • Python • Ruby
JavaScript • Matlab • SQL

Familiar:
C++ • C# • x86 • Shell

THEORY
Machine Learning
Data Mining
Software Components & Design
Object Oriented Programming
Data Structures & Algorithms
Linear Algebra
Discrete Math
Statistics
Technical Writing
Databases
Networking

DEVELOPER TOOLS
Frameworks
Spring • Rails • Flask

Environments
Eclipse • NetBeans • PyCharm
Vim • Visual Studio • Jenkins

Markup and Data
HTML • XML • JSON
Markdown • RST • YML

Version Control
Git • Subversion

EXPERIENCE

THE OHIO STATE UNIVERSITY | TA for Intro to Programming
May 2016 – Present | Columbus, OH
- Mentored Engineering Students with Matlab and algorithmic logic
- Assisted with Engineering labs and Technical Communication Skills

TEXAS INSTRUMENTS | Software Engineering Intern
May 2017 – August 2017 | Houston, TX
- Implemented hardware profiling features in the OpenCL runtime using C, C++ to facilitate multi-core development
- Developed a Python user interface and analysis tool for profiling hardware events such as L1 Cache misses and Stall Cycles
- Integrated Program trace and hardware status monitors into the runtime
- Committed changes a quarter ahead of schedule and picked up future workflow
- Presented software and a demonstration to entire Codegen division

OAK RIDGE NATIONAL LAB | Lead Software Engineering Intern
May 2016 – August 2016 | Oak Ridge, TN
- Lead a team effort to visualize the national electric grid status on a US map to assist 911, FEMA, The National Guard, The White House
- Utilized Python to scrape utility outage maps and aggregated local outage data in PostgreSQL and MySQL databases
- Trained a Naive-Bayes Machine Learning Filter to extract outage relating tweets with 98% accuracy
- Presented work at the Oak Ridge National Lab Poster Session
- Nominated for and published in journal

OAK RIDGE NATIONAL LAB | Software Engineering Intern
May 2016 – August 2016 | Oak Ridge, TN
- Collaborated on a team effort to visualize the clustering of commercial innovation
- Developed a Geo-coding Python package to convert among geographical descriptions such as coordinates, addresses, CBSA, FIPS, etc.
- Published code into ORNL's internal code repository for future use

OAK RIDGE NATIONAL LAB | Software Engineering Intern
May 2015 – August 2015 | Oak Ridge, TN
- Collaborated on a team effort to model and simulate the Hepatitis-C Cascade of Care
- Utilized Repast Suite and Java to create an agent based model
- Developed health care insurance scenarios and Co-developed patient networking elements
- Presented work at Oak Ridge National Lab Poster Session
- Nominated for and Published in National Conferences on Undergraduate Research Journal

TOP GITHUB PROJECTS

Tweet Tone Analysis
- Python application that scraped and streamed 12,000 tweets about Capital One into a database
- Classified collected tweets by tone through IBM Watson's Tone Analysis API
- Created a Flask web application to visualize Tweets according to tone, using a live dashboard and radar plot