

# Shyam Thiagarajan

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## EDUCATION

### THE OHIO STATE UNIVERSITY

BS IN COMPUTER SCIENCE & ENGR.

Expected May 2019 | Columbus, OH

Cum. GPA: 3.95 / 4.0

Conc. in Software Engineering

College of Engineering

Dean's List (All Semesters)

Full Tuition Scholarship

### FARRAGUT HIGH SCHOOL

Graduated May 2015 | Knoxville, TN

Cum. GPA: 4.45 / 4.0

Top 4% in class

Highest Honors with Distinction

National AP Scholar

## EXTRACURRICULAR

Minority in Engineering Program

Society of Hispanic Professional Engineers

Collegiate Web Developer's Club

Open Source Club

## COURSEWORK

### UNDERGRADUATE

Software Components

Software Design

Programming in Java

Data Structures and Algorithms

Linear Algebra

Statistics

Technical Writing

## SKILLS

### SOFTWARE SKILLS

Proficient

Java • Python • Matlab • SQL

Learning:

C++ • C# • Javascript

### DEVELOPER TOOLS

Machine Learning:

Redis • Minor Third

Database Tools:

pgAdmin • MySQL Workbench

Environments:

Eclipse • NetBeans • PyCharm

Version Control:

Git • Subversion

Markup

HTML • XML • Markdown

## 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

### 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
- Invited to publish in journal, currently under review

### OAK RIDGE NATIONAL LAB | SOFTWARE ENGINEERING INTERN

May 2016 – Aug 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 – Aug 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

### OAK RIDGE NATIONAL LAB | PROGRAMMING INTERN

June 2014 – Aug 2014 | Oak Ridge, TN

- Assisted in modernizing DCAL software for occupational application
- Ensured the modified program's accuracy through Excel
- Presented work to ORNL faculty, high school teachers, students, and community members

## TOP GITHUB PROJECTS

### Political Tweet Analysis

- Python application that harvests tweets from Political Candidates
- Graphs analytical data such as frequently used words and frequent tweet times
- Implements a Naive-Bayes text classifier to categorize a phrase as a candidate's

### Anagram Hash

- Java MVC Swing GUI that compares scrambled words by hashing characters to prime numbers (fastest algorithm).