

# Shyam Wyatt Thiagarajan

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GitHub: <https://github.com/ShyamThiagarajan>

## » EDUCATION

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**The Ohio State University**, Columbus, OH

Bachelors of Science in Computer Science and Engineering (Expected Graduation 2019), GPA 3.98/4.00

## » TECHNICAL SKILLS

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**Systems:** Linux Environments, Tableau, Redis, DCAL, Minor Third

**Developer Tools:** Git, Subversion, Eclipse, Netbeans, Pycharm, MATLAB, Vi, Atom, MySQL Workbench, PGAdmin III

**Languages:** Proficient in Java, Python, MATLAB, HTML, SQL, and Learning C/C++

## » SOFTWARE ENGINEERING EXPERIENCE

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### Visualizing the Electric Grid Status

Lead Programming Intern, Oak Ridge National Lab, *Summer 2016*

- Lead a team effort to visualize the national electric grid status on a US map to assist 911, FEMA, The White House
- Utilized Python to scrape utility outage maps and aggregate local outage data in postGres 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

### Analyzing the Innovation Ecosystem

Programming Intern, Oak Ridge National Lab, *Summer 2016*

- Collaborated on a team effort to visualize the clustering of commercial innovation
- Developed a Geo-coding script in Python to convert among geographical descriptions such as coordinates, addresses, CBSA, FIPS, etc.
- Published code into ORNL's internal code repository for future use
- Mentioned in a PRESENTATION

### Simulating The Hepatitis C Cascade of Care

Programming Intern, Oak Ridge National Lab, *Summer 2015*

- Collaborated on a team effort to model and simulate 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

### Modernizing Dosimetry Based Software for Occupational Safety

Programming Intern, Oak Ridge National Lab, *Summer 2014*

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

### Learning Modern Machine Learning Techniques

Programming Intern, Oak Ridge National Lab, *Summer 2013*

- Learned fundamentals of supercomputing and Machine Learning from Dr. Chris Simmons
- Used KNN algorithms and Minor Third to compare satellite and computer generated images
- Assisted in determining patterns in ORNL Cyber Attack

## » MENTORSHIP EXPERIENCE

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### Teacher's Assistant and Grader for Introductory Engineering and Programming Class, Fall 2016-Present

- Mentored Engineering Students with MATLAB and algorithmic logic
- Assisted Engineering Students with Engineering labs and Technical Communication Skills

## » HONORS

- Ohio State Dean's List (2015-Present)
- Full Tuition Scholarship
- National AP Scholar
- AP Scholar with Distinction
- People to People Ambassador
- National Honors Society Member

## » EXTRACURRICULAR

- Member of Ohio State Open Source Club (Aug 2015-Present)
- Member of Ohio State Collegiate Web Developers Club (Aug 2015-Present)
- Cellist for Knoxville Youth Symphony (Aug 2013- May 2015)
- Goalie for Farragut Varsity Lacrosse (Aug 2013-May 2015)
- Pitcher and 3<sup>rd</sup> baseman for Farragut Varsity Baseball (June 2012-June 2013)
- Professional Custom PC Builder (Aug 2011-Present)

## » HONOR SOCIETY INVITES (of 2016)

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|---|----------------|--|----------------------|
| • National Society of Hispanic Scholars   | • SACNAS       | • Golden Key International Honor Society | • Phi Eta Sigma      |
| • National Society of Collegiate Scholars | • Phi Sigma Pi | • Society for Collegiate Leadership      | • Alpha Lambda Delta |