

J. Hassler Thurston  
[hasslerthurston.com](http://hasslerthurston.com) | [github.com/jthurst3](https://github.com/jthurst3)

## SOFTWARE ENGINEERING INTERNSHIP QUALIFICATIONS

- **Programming Languages:** Proficient in Java, Python, HTML/CSS/Javascript, C, Wolfram Language/Mathematica; knowledge of Assembly, Scheme, PHP, Prolog, Matlab/Octave, Ruby
- **Programming Tools:** Proficient with Git/GitHub/Bitbucket, Bash shell/scripting, Heroku, MongoDB, Sublime Text, Markdown; knowledge of SQL, reStructuredText, Mercurial, Evothings, Continuous Integration, Vim, Emacs
- Broad understanding of an array of topics in Computer Science, from artificial intelligence and machine learning to natural language processing, data science and theory
- Proven independent initiative and problem solving skills demonstrated through completion of nine Coursera courses and many independent projects
- Confident communicator with clear speaking and listening abilities, enhanced through public speaking courses, nonviolent communication training, and peer facilitation

## EDUCATION

**University of Rochester, Bachelor of Science in Computer Science**, Rochester, NY (Expected May 2017)

- GPA 4.0 (Awarded Dean's List every semester)
- *Current Courses:* Advanced Algorithms, Computer Organization
- *Past Computer Science Courses:* Design and Analysis of Efficient Algorithms, Logical Foundations of Artificial Intelligence, Introduction to Artificial Intelligence, Computer Models and Limitations, Undergraduate Problem Seminar, Computation and Formal Systems, Science of Data Structures
- *Past Mathematics Courses:* Honors Calculus III and IV (includes Linear Algebra and Differential Equations)

## SOFTWARE DEVELOPMENT EXPERIENCE

**Software Entrepreneurship Intern, Fitruvia Movement Analysis Systems**, Rochester, NY (Summer 2014)

- Using Javascript, designed a full-body wearable technology system to give athletes real-time feedback on their body movements, using state-of-the-art heuristic methods and mathematical models
- Created extensive documentation and a number of tutorials to ease the transition for future developers
- Collaborated with other engineering and business interns to help attract venture capitalists and consumers

**Lab Manager, Computation and Language Lab, University of Rochester**, Rochester, NY (Summer 2014)

- Extended the functionality and documentation of LOTlib, a Python library for simulating experimental data on "Language of Thought"
- Created HTML documentation for LOTlib using Sphinx and designed unit testing framework for LOTlib using unittest
- Helped set up various laboratory equipment, including five workstations running Ubuntu 14.04

## RESEARCH EXPERIENCE

**Undergraduate Research Assistant, TwitterHealth Research Group, University of Rochester**, Rochester, NY (Fall 2014-present)

- Currently designing a word model that can predict and identify social media users susceptible to mental illnesses
- Using Python's BeautifulSoup library, designed a web scraper to extract information about thousands of individuals

## SELECTED PROJECTS

- **The Unsolved Problems Database** – created website using HTML/CSS/JS with NodeJS and MongoDB as a resource for people to learn about, create, discuss, and solve unsolved problems.  
Website: [unsolveddatabase.org](http://unsolveddatabase.org); code at [github.com/jthurst3/unsolveddatabase](https://github.com/jthurst3/unsolveddatabase)
- **Computer Music** – created Mathematica code to output short musical compositions with use of genetic algorithms, melody, harmony, and counterpoint.  
Website: [hasslerthurston.com/projects/hacc](http://hasslerthurston.com/projects/hacc); sample code at [github.com/jthurst3/computermusic](https://github.com/jthurst3/computermusic)
- **Automata Game** – created unique turn-based board game using cellular automata; inspired by John Conway's "Game of Life", Stephen Wolfram's "A New Kind of Science", and Coursera's Model Thinking class.  
Website: [hasslerthurston.com/automata](http://hasslerthurston.com/automata); code at [github.com/jthurst3/automata\\_game](https://github.com/jthurst3/automata_game)

## COMPETITIONS AND COMMUNITY INVOLVEMENT

- **Tutoring Chair and Tutor, Computer Science Undergraduate Council**, University of Rochester (Fall 2014-present)
- **Teaching Assistant**, Computer Models and Limitations (Spring 2015), Computation and Formal Systems (Fall 2014)
- **Workshop Leader**, Computer Models and Limitations (Spring 2015)
- **Peer Facilitator, One Community Program**, University of Rochester (Summer 2014)
- **2nd Place, Machine Learning, CS Games**, Sherbrooke, QC (with Jack Valinsky, Spring 2015)
- **3rd Place, Relay Programming, CS Games**, Montreal, QC (with Dan Hassin and Joe Brunner, Spring 2014)
- **Best Use of SendGrid API, RocHacks Spring 2014 Hackathon**, University of Rochester (Spring 2014)
- **Best Command-Line Interface, HackNY Spring 2014 Hackathon**, Columbia University (with Dan Scarafoni, Spring 2014)