

J. Hassler Thurston

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SOFTWARE ENGINEERING INTERNSHIP QUALIFICATIONS

- **Programming Languages:** Proficient in Java, Python, HTML/CSS/Javascript, Wolfram Language/Mathematica; knowledge of C, 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
- 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 problem solving skills demonstrated through completion of nine online 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, Rochester, NY

Bachelor of Science in Computer Science, Expected May 2017

- GPA 4.0 (Awarded Dean's List every semester)
- Teaching Assistant, Computer Models and Limitations (Spring 2015), Computation and Formal Systems (Fall 2014)
- Workshop Leader, The Science of Programming (Spring 2015)
- *Current Courses:* Advanced Algorithms, Computer Organization
- *Selected Past Courses:* Computer Models and Limitations, Algorithms, Artificial Intelligence, Undergraduate Problem Seminar, Computation and Formal Systems

SOFTWARE DEVELOPMENT EXPERIENCE

Software Entrepreneurship Intern, Summer 2014

Fitruvia Movement Analysis Systems, Rochester, NY

- 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, Summer 2014

Computation and Language Lab, **University of Rochester**, Rochester, NY

- 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
- Designed unit testing framework for LOTlib using unittest
- Helped set up various laboratory equipment, including five workstations running Ubuntu 14.04

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 (e.g. learn about the Collatz Conjecture at unsolveddatabase.org/problem/collatz). Website: unsolveddatabase.org; code at github.com/jthurst3/unsolveddatabase
- **Computer Music** — created Mathematica code to output short musical compositions (violin duets, string quartets, fiddle tunes) with use of melody, harmony, and counterpoint
- **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; code at github.com/jthurst3/automata_game

COMPETITIONS AND COMMUNITY INVOLVEMENT

- **Best Use of SendGrid API, RocHacks Spring 2014 Hackathon**, University of Rochester (April 12-13, 2014)
- **Best Command-Line Interface, HackNY Spring 2014 Hackathon**, Columbia University (with Dan Scarafoni, April 5-6, 2014)
- **3rd Place, Relay Programming, CS Games**, Montreal, QC (with Dan Hassin and Joe Brunner, March 21-23, 2014)
- **Tutoring Chair, Computer Science Undergraduate Council**, University of Rochester (Fall 2014-present)
- **Peer Facilitator, One Community Program**, University of Rochester (Orientation 2014)