

Matthew S. Levin

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Overview: Detail-oriented software developer with a passion for artificial intelligence and machine learning. Experience automating processes, breaking down large tasks into manageable sections, and finding the most efficient way to tackle a real world problem. Team player with the drive to always keep learning, desire to make the world a better place, and determination to create the best product possible.

Education

University of Rochester, Hajim School of Engineering and Applied Sciences

Rochester, NY

Bachelor of Science in Computer Science (Overall GPA: 3.79 / 4.00)

May 2018 (Anticipated)

- **Notable Coursework:** Artificial Intelligence, Algorithms, Linear Algebra with Differential Equations, Probability and Mathematical Statistics, Web Programming, Data Structures, and Computer Organization
- **Activities:** Golden Key International Honour Society, Computer Science Undergraduate Council (CSUG), Human Computer Interaction Lab (ROC HCI), and Intramural Soccer and Ultimate Frisbee

Skills and Interests

- **Programming Languages:** Java, Python, JavaScript, C++, C, OCaml, Bash, HTML, CSS, SQL, and Swift
- **Software and Tools:** NumPy, Git, Pandas, scikit-learn, Node, Postman, jQuery, Ajax, Slurm, and Xcode
- **Research Interests:** Machine Learning, Artificial Intelligence, Big Data, and Pattern Recognition

Projects and Publications

Bayesian Inference (Spring 2016)

- Compares inference algorithms on probabilistic graph models in Java for Artificial Intelligence course
- Individually created an exact calculator and several approximation algorithms to comply with larger datasets

UR Bus (Spring 2017)

- Website and iOS app to track university shuttles in real time and find optimal routes using a graph algorithm
- Developed a custom API combining Google Maps JavaScript API and Transloc API for shuttle information
- Worked with one peer on engineering side, while other teammates focused on user research and evaluation

Automated Reasoning (Spring 2016)

- Finds or proves solutions to systems of propositional logic using Java for Artificial Intelligence course
- Worked individually to implement algorithms that identify a solution, or prove a value is true in all solutions

Cache Simulator (Spring 2017)

- Evaluates performance of different cache configurations to minimize misses, developed in C with a partner

T. Sen, K. Hasan, M. Tran, **M. Levin**, Y. Yang, and M. E. Hoque, Say CHEESE: the Common Habitual Expression Encoder for Smile Examination and its Application to Analyze Deceptive Communication, *Submitted*.

Work Experience

Undergraduate Researcher

June 2017 – Present

Human Computer Interaction Lab | University of Rochester

Rochester, NY

- Apply machine learning techniques to perform automated lie detection from audio and video
- Use hidden Markov models and clustering algorithms to recognize patterns in human conversation
- Deploy code on BlueHive supercomputing cluster to train and test models on massive dataset

Teaching Assistant

August 2017 – Present

Computer Science Department | University of Rochester

Rochester, NY

- Selected by professor to serve as teaching assistant based on previous performance in the course
- Mentor project teams in designing and building products to meet a specific consumer need
- Grade assignments and hold weekly office hours for Human Computer Interaction course

Information Technology Consultant

June 2016 – Present

Simon School of Business | University of Rochester

Rochester, NY

- Assist graduate students and professors in troubleshooting technical problems and configuring devices
- Automated printer configuration process for students by developing a one-click application in AppleScript

Volunteer Tutor

January 2017 – Present

Computer Science Undergraduate Council | University of Rochester

Rochester, NY

- Hold free weekly tutoring sessions for several computer science courses

Other Activities: Eagle Scout (Boy Scouts of America), music instructor, and avid guitarist and bassist