Matt Levin

(914) 629-6775 | mlevin6@u.rochester.edu | matt-levin.com

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:** Web Programming, Artificial Intelligence, Algorithms, Physics of Music, Linear Algebra with Differential Equations, Probability and Mathematical Statistics, 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, HTML, CSS, SQL, C++, C, OCaml, Bash, and Swift
- **Software and Tools:** Node, Postman, Git, NumPy, Pandas, scikit-learn, jQuery, and Ajax
- **Research Interests:** Machine Learning, Artificial Intelligence, Big Data, and Pattern Recognition

Projects and Publications

Playlist Analyzer *(2018)*

- Leverages the Spotify Web API and scikit-learn to analyze users' top 100 tracks to identify their music taste
- Analyzes multiple users' playlists to create a shared playlist suited for a group activity, such as studying
- Uses machine learning to generate a playlist of songs tailored to an individual user's music preferences

UR Bus *(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

Concurrent Shortest Paths *(2017)*

- Finds shortest paths in a graph from a source node using a parallelized delta-stepping algorithm in Java
- Achieved nearly three-hundred percent speedup compared to the sequential version of the algorithm

Bayesian Inference *(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

T. Sen, K. Hasan, M. Tran, **M. Levin**, Y. Yang, and M. E. Hoque, Say CHEESE: Common Human Emotional Expression Set Encoder and its Application to Analyze Deceptive Communication, *IEEE International Conference on Automatic Face and Gesture Recognition*, Xian, China, May 2018.

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

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

Teaching Assistant August 2017 – December 2017
Computer Science Department | University of Rochester *Rochester, NY*

- 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

Music Instructor June 2012 – August 2015
New York Rock Academy | Music in Chappaqua *Chappaqua, NY*

- Taught one-on-one and group lessons on bass, guitar, drums, songwriting, and live performance skills

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