Matthew W. Leeds

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Education

The University of Alabama, Tuscaloosa, AL August 2013 — May 2017

- B.S. in Computer Science and Applied Mathematics
- Cumulative GPA: 3.61
- Honors College
- Computer-Based Honors Undergraduate Research Program
- The Mallet Assembly Honors Residence Program

Honors and Accolades

- National Merit Finalist
- University of Alabama Dean's List, Fall 2013 and Fall 2015
- University of Alabama President's List, Spring 2014
- Computer-Based Honors Fellowship Scholarship Recipient

Professional Skills

- Proficient in using linux, git, bash, vim, and gdb
- Languages: Fortran, Java, JavaScript, Go, and especially C/C++ and Python
- Moderate experience in web development, Android development, and GTK+ development
- Interests in CS: cryptography, machine learning, blockchain, and systems programming

Publications

- Matthew Leeds, Miclain Keffeler, and Travis Atkison, "*Examining Features for Android Malware Detection*" accepted to SAM '17 conference, April 2017
- Matthew Leeds, Miclain Keffeler, and Travis Atkison, "*A Comparison of Features for Android Malware Detection*" accepted to ACM SE conference, March 2017
- Matthew Leeds and Travis Atkison, "*Preliminary Results of Applying Machine Learning Algorithms to Android Malware Detection*" accepted to CSCI conference, December 2016

Work Experience

Software Engineering Intern, *Red Hat* May 2016 — Present

- Utilize gdb, GTK+ Inspector, and other tools to debug and improve software
- Contribute to GNOME Builder, an IDE, and flatpak, a tool for packaging containerized desktop apps
- Participate in free software communities on IRC and GitHub

Lab Manager, *Computer-Based Honors Program* March 2014 — Present

- Manage a computer lab with Windows, OS X, and Linux machines
- Solve technical problems for students involved in undergraduate research
- Administrate and monitor servers providing various services

Research Experience

Undergraduate Researcher, *University of Alabama* January 2016 — Present

- Worked under Dr. Travis Atkison in the Computer Science department
- Trained a neural network to classify Android malware using TensorFlow
- Wrote Bash and Python scripts to gather, process, and graph data

Undergraduate Researcher, *University of Alabama* September 2014 — April 2015

- Worked under Dr. Jeremy Bailin through the Computer-Based Honors Program
- Automated the creation of synthetic images of simulated galaxies using Python scripting
- Solved technical issues with running the SUNRISE radiative transfer code on a supercomputer

Undergraduate Researcher, *Clemson University* June 2014 — July 2014

- Developed a linear programming solver in C++
- Built a web interface for modeling heterogeneous networks
- Utilized git, LaTeX, PHP, JavaScript, and other technologies

Leadership Experience

Service Chair, *The Mallet Assembly* January 2017 — April 2017

- Coordinate with community organizations and Malleteers to plan service events

Vice President, *UA Association for Computing Machinery* January 2016 — December 2016

- Coordinate with other ACM officers to plan meetings, workshops, and events
- Lead workshops on git and gdb

Social Chair, *The Mallet Assembly* April 2016 — December 2016

- Coordinate with other Mallet officers and members to plan events such as open mic nights

Delivery Lead, *Code for Birmingham* May 2015 — March 2016

- Monitor and coordinate teams working on CFB projects
- Communicate with new and potential members
- Research potentially redeployable projects

Service Chair, *UA Association for Computing Machinery* September 2015 — January 2016

- Research and publicize CS-related community service opportunities
- Meet with other ACM officers organizing events and activities

Brigade Captain, *Code for Tuscaloosa* July 2015 — January 2016

- Lead a team of volunteers working on open source civic technology
- Contribute to software projects on GitHub
- Advocate for open data in city government