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 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 GNU/Linux, git, bash, and gdb
- Languages: Fortran, Java, Scheme, JavaScript, Go, and especially C/C++ and Python
- Moderate experience in web development, Android development, and GTK+ development
- Strengths in CS: cryptography, algorithms, and data structures

Publications

- 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

Volunteer Experience

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

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

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

- Coordinate with community organizations and Malleteers to plan service events

Volunteer, *Greener Tide Project*   Fall 2015, Fall 2016

- Collect recycleables on football gamedays
- Work with UA Recycling, the Green Sports Alliance, and the ESPN Green Team

Volunteer, *Every Move Counts Chess Education Program*   Spring 2014

- Taught Chess to elementary school kids in the community
- Created and executed a lesson plan on chess notation

Research Experience

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

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, *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

Leadership Experience

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