Matthew "Phaedrus" Leeds

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Professional Skills and Qualifications

- GNOME Foundation member
- Over five years of experience contributing to FOSS projects, mostly desktop Linux Operating Systems
- Proficient in using Linux development tools such as gdb, valgrind, autotools, and meson
- Most programming experience in C, some C++, Python, Go, Rust, and Bash

Work Experience

Maintainer, *Flatpak*   October 2017 — Present

- Implemented the support for offline updates in Flatpak, with initial work by Philip Withnall
- Helped with general maintenance, having contributed several hundred patches and code reviews
- Improved documentation

Maintainer, *GNOME Software*   November 2020 — Present

- Implemented parts of the ongoing UI refresh in the GNOME 40 and 41 cycles
- Contributed bug fixes and code reviews

Software Engineer, *Endless OS Foundation*   June 2017 — March 2021

- Maintained Endless OS, a Linux distribution designed for users with limited computer experience and Internet connections
- Played a major role in implementing and maintaining support for offline (LAN and USB) updates
- Helped architect and implement support for secure Pay-As-You-Go technology in Endless, to expand access to computers
- Coordinated with partners deploying Endless OS to debug reported issues and customize the OS for their needs
- Made significant contributions to the OSTree project upstream, which enables atomic updates and provides a storage format for Flatpaks
- Presented at conferences such as GUADEC, communicating technical topics to a broad audience
- Mentored junior software engineers
- Worked in teams that use the scrum methodology

Software Engineering Intern, *Red Hat*   May 2016 — May 2017

- Utilized gdb, GTK+ Inspector, and other tools to debug and improve software
- Contributed to Flatpak, a tool for packaging containerized desktop apps
- Added features to GNOME Builder including find and replace support and support for building Flatpak manifests

Lab Manager, *Computer-Based Honors Program*   March 2014 — May 2017

- Managed a computer lab with Windows, OS X, and Linux machines
- Solved technical problems for students involved in undergraduate research
- Administrated and monitored servers providing various services

Education

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

- B.S. in Computer Science and Applied Mathematics
- Honors College
- Computer-Based Honors Undergraduate Research Program (now Randall Research Scholars Program)
- The Mallet Assembly Honors Residence Program

Research Experience

Undergraduate Researcher, *University of Alabama*   January 2016 — May 2017

- 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

Organizer and Activist, *Direct Action Everywhere*   December 2018 — Present

- Organize social gatherings to build the community and welcome people into it
- Conduct security audits for the Tech working group

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

- Coordinated with other ACM officers to plan meetings, workshops, and events
- Led workshops on git and gdb

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

- Monitored and coordinated teams working on CFB projects
- Communicated with new and potential members

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

- Led a team of volunteers working on open source civic technology
- Advocated for open data in city government, including meeting with officials

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