

Haoda Wang

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EDUCATION

University of Southern California, Viterbi School of Engineering Expected Graduation May 2022
Bachelor of Science in Computer Engineering and Computer Science, Minor in Astronautical Engineering

Organizations: IEEE, ACM, AIAA, USC RPL

Relevant Coursework: Discrete Methods in Computer Science, Introduction to Embedded Systems

SKILLS & INTERESTS

Languages (Most to Least Proficient): C++, Python, ES6 Javascript, SQL, Bash, Java, C#, Rust

Libraries: NodeJS, Express, Koa, Passport, Flask, Angular, SciPy stack

Platforms/Tools: Debian, CentOS, RHEL, AWS, Red Hat Openshift, Git, Windows Server 2016, MongoDB, Redis, Postgres, Docker

WORK EXPERIENCE

USC Information Sciences Institute – Research Assistant, *Los Angeles, CA* August 2018 – Present

- Build an innovative defense against low-rate denial of service attacks utilizing Systemtap
- Test the defense on multiple Linux servers against various attack scenarios using Docker

AIM Research Company – Software Engineer, *Hockessin, DE* May 2017 – July 2018

- Implemented a GitLab instance running on a Red Hat Enterprise Linux server
- Built an inventory management system using AngularJS and Koa.js
- Provided training on Git and basic Linux systems administration

B&W Tek – Technical Consultant, *Newark, DE* May 2016 – July 2018

- Built a backup and restore system to quickly install required programs onto production devices
- Advised R&D department on Linux deployments in embedded systems

PROJECTS

Arch Linux – Open source Linux distribution, <https://www.archlinux.org/> January 2018

- Maintaining packages including multiple Ruby and Python libraries, as well as Electron libraries in the Arch User Repository

OpenMW – Game engine, <https://openmw.org/> January 2017 – July 2017

- Contributed an improved music shuffling algorithm to a rebuilt from scratch C++ game engine for the 2003 game Morrowind

Various GitHub Projects – Open source projects, <https://github.com/h313> January 2017 – July 2017

- Built a Python-based music choice analyzer using Last.fm data and the SciPy stack
- Set up a NodeJS/Redis notification system to remind users to take a rest using web push
- Created a simple server-side dead man's switch with Flask
- Used a simple feedforward neural network in Keras to model cannon data from a 16th century warship
- Wrote a school bus tracking service using React, Koa, and Postgresql
- Built a club management system using the MEAN stack
- Designed a Turing-complete programming language based on Spotify playlists
- Various contributions into other repositories including the Signal project and NASA's openMCT

AWARDS AND HONORS

Awards: USC TrojanHacks 3rd Place Team, SANS CyberStart CTF top 23, Philadelphia Classic 1st Place Team

Scholarships: Presidential Scholarship, National Merit Scholarship