

JOSHUA K.A. CEPEDA

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Software Engineer, Systems Programming

Software Engineer with over 3 years experience in a professional, fast-paced startup environment. Specialties include low-level embedded and operating systems programming in languages such as C, with an eye toward cybersecurity and memory safety. Additional professional experience with Python for use in backend web programming and automation.

Technical Skills

Systems programming: C | Python | Bash/Shell Scripting

Operating systems and containerization: Linux | Docker

Version control: Git | GitLab | GitHub

CI/CD systems: GitLab CI | GitHub Actions

Databases: SQL

Project build systems: Make | CMake

Web programming: JavaScript | TypeScript

Backend web frameworks/services: Django | NGINX | Flask

S3 cloud services: Amazon Web Services | Google Cloud Services | Azure

Work Experience

Software Engineer

01/2022 - Present

Private Machines Inc, Brooklyn, NY

- Software engineer responsible for active development on several software projects, including web services, operating systems, and low-level firmware
- Spearheaded development of custom UEFI bootloader in C used in production systems
- Designed and implemented pagination and metrics APIs for Django web application in Python

Teaching Assistant

01/2021 - 04/2022

Notre Dame Computer Science and Engineering Department, Notre Dame, IN

- Tutored students during office hours, graded assignments
- Courses: Operating Systems, Systems Programming

Research Assistant

08/2019 - 04/2022

Notre Dame Center for Research Computing, Notre Dame, IN

- Performed hardware testing and research for CERN System-On-Chip interest group
- Ported PetaLinux to ARM-based Zynq System-on-Chip module

Education

Bachelor of Science in Computer Engineering, Graduating Year 2022

University of Notre Dame, Notre Dame, IN

- GPA: 3.6/4.0
- Awarded Trustey Family Merit Scholarship for length of undergraduate degree