

Joshua K.A. Cepeda

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Education

Bachelor of Science in Computer Engineering, University of Notre Dame

Expected Graduation May 2022

- 3.6/4.0 GPA
- Trustey Family Merit Scholar

Key Skills

- Python (5 years)
- C/C++ (4 years)
- JavaScript, frontend & node.js (5 years)
- MATLAB (1 year)
- Linux/Unix Environments (4 years)
- Yocto Project/bitbake (1 year)
- Shell Scripting (2 years)
- HTML/CSS (5 years)
- LaTeX (3 years)
- Microsoft Office Suite

Work Experience

Research Assistant, Center for Research Computing

Spring 2019 - Spring 2021

- Collaborated with students from other universities to write a System-On-Chip benchmarking suite in shell script
- Built custom Linux build environment with Yocto targeting Enclustra System-On-Chip board

Computing Assistant, Notre Dame Department of Engineering Science Computing

Fall 2019 - Spring 2021

- Wrote PowerShell and shell scripts to automate installation and maintenance of Windows computer clusters
- Performed routine maintenance and updates on school Windows and Linux computer clusters

Teaching Assistant, Notre Dame Department of Computer Science and Engineering

Spring 2021 - Current

- Courses: Systems Programming, Operating Systems
- Tutored fellow students core concepts of Unix systems programming and operating systems principles
- Assisted with debugging and grading students' Python, shell script, and C programs

Classes

Open-Source Software Development

Spring 2020

- Learned precepts of open-source software design and development
- Worked in a small team in scrum-style sprints to develop an open-source application
- Used the Vue.js reactive framework to develop a web application to aid in Lego designs

Introduction to Compilers & Language Design

Spring 2021

- Learned to formalize programming language syntax via creation of context-free grammars
- Implemented a strictly-typed, C-style procedural programming language compiler with Flex, YACC, Bison, and C

Activities

Notre Dame Data Club Hackathon

Fall 2020

- Worked in a small team to perform data analysis with Python and R
- Developed an interactive website with to present findings with HTML/CSS/Javascript

Irish Hacks Hackathon

Fall 2019

- Worked in a small team to develop a Chrome extension to scan for and retrieve news articles, using JavaScript and the IBM Watson API

Personal/Hobbies

- Training in classical piano
- Running and playing tabletop role-playing games
- Game development with Godot, Unity, and PICO-8

References available upon request.