Brett Wiseman

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EDUCATION

University of Notre Dame, College of Engineering **Notre Dame, IN**
Bachelor of Science | Computer Engineering **May 2023**
GPA: 3.882

Honors: College of Engineering Dean's List, Blackhawk Alumni Scholarship recipient and member
Relevant Courses: Operating Systems, Computer Networks, Computer Architecture, Data Structures, Systems Programming, Logic Design Embedded Systems, Circuits/Electrical Engineering Lab,

SKILLS

Programing Languages: C, C++, Python, Bash/sh, Matlab, Solidworks, HTML/CSS, ARM/Assembly
Frameworks: Linux Terminal, Verilog, Git/Github, Vim, Arduino, WireShark, macOS, Windows

EXPERIENCE

Undergraduate Teaching Assistant **Notre Dame, IN**
Data Structures and Systems Programming **Fall 2021 - Present**

- Help students develop a better understanding of relevant data structures as well as C++ classes, git / GitHub submissions, and memory management
- Assist students in learning concepts such as shell scripting, data processing with python, and system calls in C
- Manage a group of students as they developed software by hosting code reviews and giving feedback throughout the project

Cooperative Computing Lab (CCL) **Notre Dame, IN**
Undergraduate Research **Fall 2021 - Present**

- Software Developer working on high-level python abstractions for parallel computing and distributed systems software to match results running on a local machine
- Contribute to Work Queue software used by thousands of users and at other universities such as the University of Wisconsin
- Attend weekly meetings to present progress, and discuss possible ways of improvement

PROJECTS

Personal Calendar Application **Spring 2022**

- Developed a Client and Server application that stores information about events on the server based on requests from the client
- Designed how messages between Client and Server are structured, as well as how data is stored persistently on the Server-side
- Used multiple threads to handle multiple clients concurrently, as well as mutex locks for synchronization

Python Webscraper **Fall 2020**

- Worked with client to build a web scraper to retrieve relevant information from a specific website
- Experimented with a new library (Selenium) to get around issues regarding authentication

Message Queue **Fall 2021**

- Practice use of synchronization primitives and multi-threading by building a chat application that uses a personally developed C library to send and receive messages based on subscribing and publishing to queues in a server
- Learned to use the ncurses library to design the user interface of the chat application

Cisco Systems - Open MPI **Spring 2021**

- Contributed to open source project (Open MPI) by fixing issues in Github Action CI
- Implemented code to check cherry-picked committed to ensure merged was allowed before merge for all parent commits
- Organized team meetings and led team discussions