Brayden L. Pettigrew

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EDUCATION

The Pennsylvania State University   University Park, PA
Bachelor of Science in Computer Science (GPA: 3.88/4.00)   *August 2021 – May 2025*
- **Relevant Courses:** Calculus and Vector Analysis, OOP with Web-Based Applications, Discrete Mathematics for Computer Science, Computer Organization and Design, Introduction to Systems Programming, Programming Language Concepts, Data Structures and Algorithms, Operating Systems (Relevant coursework GPA: 4.00/4.00)

PROJECTS

Multi-threaded Communication Channel Project   February 2024 – Present
The Pennsylvania State University   *University Park, PA*
- Developed a multi-threaded communication channel library in C, enabling inter-thread communication.
- Utilized mutexes and condition variables for thread synchronization, ensuring thread safety.

Memory Management Project   January 2024 – February 2024
The Pennsylvania State University   *University Park, PA*
- Implemented a custom memory management system in C, including memory allocation, reallocation, and free functionalities. Enhanced performance and organization with an embedded segregated linked list structure and footer optimizations.

Personal Portfolio Website   November 2023 – Present
The Pennsylvania State University   *University Park, PA*
- Developed a personal portfolio website with HTML, CSS, and JavaScript.

Mini CPU   October 2023 – November 2023
The Pennsylvania State University   *University Park, PA*
- Implemented a foundational data path architecture using Verilog, integrating pipelining for concurrent instruction execution.

Course Scheduler Project   April 2023 – May 2023
The Pennsylvania State University   *University Park, PA*
- Created a course scheduler application with a GUI, including both user and admin functionality.
- Developed with Apache Derby Database, SQL, and Java Swing.

WORK EXPERIENCE

Server/Host   September 2018 – August 2023
Wild Ginger III   *New Hope, PA*
- Multitasked effectively by managing several customers in a fast-paced environment, creating a seamless dining experience.
- Collaborated productively with other restaurant staff, leading to a high level of service and guest satisfaction.
- Spearheaded the training of new staff.

EXTRACURRICULARS

Google Developers Student Club   August 2023 – December 2023
The Pennsylvania State University   *University Park, PA*
- Participated in a community dedicated to exploring various software and building solutions in a learning environment.

Sigma Chi Fraternity Head Risk Manager   August 2022 – December 2022
The Pennsylvania State University   *State College, PA*
- Organized a team to oversee the safety and execution of fraternity events, effectively reducing potential issues and danger.

HONORS/AWARDS
- Summa Cum Laude, Central Bucks East High School, May 2021 *(GPA: 4.00/4.00)*
- President's Education Award: Outstanding Academic Excellence, May 2021
- The Pennsylvania State Provost Award

TECHNICAL SKILLS

Languages: Python, Java, SQL, C, Verilog, JavaScript, HTML, CSS
Libraries/Frameworks: React, Node.js, Git, AWS