Samuel Johnson

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EDUCATION

The Pennsylvania State University, University Park 2018 ~ 2022
College of Engineering
Bachelor of Science in Computer Engineering | GPA: 3.93

TECHNICAL SKILLS

Python, C, Java, C#, Unity, Agile, Project Management, MIPS Assembly, Microsoft Office

PROJECTS

2020

Lion Cloud Storage Driver [C] – Created a functional storage driver to access a collection of virtual devices using C and its default libraries. Successfully passed all given test cases throughout the semester long project which contributed to an A in my systems design class.

Spell Selection Interface [C#/Unity] – Built an application using Unity that displays a group of scriptable objects and their attributes with a distinct and intuitive interface. Implemented within two different scenes made from scratch in the Unity engine and custom C# scripts. github.com/SamuelJohnson2022/Spell-Selection-Interface

2019

Penn State Club Matching Utility [PHP/Python] – Designed a tool for matching Penn State students with clubs or activities after the completion of an interest survey. The website provided a base prototype for future implementation using machine learning and was presented to a group of corporate representatives during the Nittany AI competition. github.com/DevPSU/People-Matching

Bullying Prevention Project [Python/Django] – Led a team in the development of a Django web-app that provides schools or workplaces with tools to manage the submission and access of bullying/harassment reports. The project was managed with an agile/scrum development model and was successfully completed throughout one semester. github.com/DevPSU/bullying-prevention

2018

Automated Fire Detection and Aid System [Arduino/Hardware] – Employed the use of a network of Arduino sensors connected over Wi-Fi to automatically detect fire and unlock outfitted doors, assisting firefighters. Won 4th place at the PA Governor's STEM Competition.

- Assisted in the development of an algorithm used to determine if temperature and infrared readings were indicative of a fire. github.com/brendanmanning/DOORA_Door

EXPERIENCE

Math Peer Tutor, Penn State Learning **2019 – Present**

- Tutored and mentored students in 25+ math courses at Penn State's Learning Center
- Adapted to individual student's specific materials and requests
- Led end of year exam review for trigonometry students

HONORS, AWARDS, AND MEMBERSHIPS

- Nittany AI Challenge First Stage Funding
- Project Manager (Fall 2019) and Software Developer (Spring 2019) in the DevPSU Startup Program
- Dean's List
- 1st Place, Hack PSU Best Use of HERE.com Map API
- 4th place of 27 regional representatives in the State-level PA Governor's STEM Competition

RELEVANT COURSEWORK

Systems Programming • Computer Organization and Design • Operating Systems • Technical Writing • Discrete Mathematics
Differential Equations • Data Structures and Algorithms • Statistics • Matrices • Calculus: I, II, and III • Communication Networks