Samuel Johnson

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EDUCATION

The Pennsylvania State University, University Park **2018 ~ 2021**

Bachelor of Science in Computer Engineering | GPA: **3.94** | Class of 1922 Memorial Scholarship

TECHNICAL SKILLS

Python, C, C#, Java, HTML/CSS, Git, Linux, Unity, Agile, Webflow, Assembly

RELEVANT EXPERIENCE

DevPSU Startup – *Project Manager, Software Engineer* **2019 – 2020**

Club Matching Team

- Developed a survey to match Penn State students to clubs and activities based on their interests and affinities; Penn State President Barron, remarked that, "[he was] surprised that Penn State didn't have something like this already."
- Led a team of five Penn State students through proposal, prototype, and presentation phases of the Nittany AI Challenge; was one of 20 teams out of 50+ to be selected to create an MVP.
- Secured a funding grant to build-out an MVP and presented it to a team of corporate representatives at the Challenge's second phase.

Bullying Prevention Team

- Led a team of four Penn State students in the development of a Django web-app that provides schools and workplaces with the tools to manage submission and retrieval of bullying and harassment reports.
- Managed the project using the agile/scrum development lifecycle and completed sprint progress reports throughout the project lifespan.
- Our open-source codebase was good enough that another team used the project and was able to easily build upon it for the following year's Nittany AI Challenge, adding a machine learning element.

PROJECTS **2021**

Call Stats [Python] – Developed a discord bot to observe activity on a voice channel and provide users with statistics about call length, number of participants, etc. Used the discord.py library to collect data and Plotly to create a Gantt chart. sam.johnson-clan.us/project-pages/discord-stats.html

Signal Sampler [Assembly] – Converted analog signals into digital values by using a serial connection to take 1024 samples at a rate of 8 kHz and print them to a terminal. Programmed onto a MC9S12C microcontroller and tested using the manufacturer provided simulation software. sam.johnson-clan.us/project-pages/signal-sampler.html

2020

Lion Cloud Storage Driver [C] – Created a storage driver to access an array of network disks from scratch using C and its standard libraries. Successfully passed all given test cases throughout the semester long project which contributed to an A in my systems design class. sam.johnson-clan.us/project-pages/lion-cloud-simulator.html

Spell Selection Interface [C#/Unity] – Built part of a user interface using Unity that was a component of a larger planned game. This was implemented within two different scenes made from the ground up in Unity and custom C# scripts. Although the other partners cancelled development, the interface is fully functional by itself. sam.johnson-clan.us/project-pages/spell-selection-interface.html

2018

Automated Fire Detection and Aid System [Arduino/Hardware] – Designed and built a proprietary fire safety system using Arduino that could unlock a "smart front door" in the event of a fire; This would allow firefighters to quickly enter a building even if residents were incapacitated. Won 4th place (out of 100+ teams) in the PA Governor's STEM Design Challenge. sam.johnson-clan.us/project-pages/doora.html

OTHER EXPERIENCE

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

- Tutored students in 25+ math courses at Penn State's Learning Center.
- Led the end of year exam review for trigonometry students.