# Samuel Johnson

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## PROFESSIONAL EXPERIENCE

**Lockheed Martin, Moorestown, NJ** - ***Associate Software Engineer*** **2022 - Present**

- Develop and maintain interfaces on the Aegis Weapons System, using the **Model-View-Controller architecture**.
- Utilize **Java Swing** for the frontend GUI, **MySQL** for the backend database, and Data Distribution Service (DDS) messaging protocol for client/server communication.
- Conduct level one **unit testing** with Java libraries **JUnit and Mockito**, achieving at least 80% branch coverage.
- Perform **acceptance testing** using **Python** and **Robot Framework** to ensure client requirements are fulfilled.
- **Identify defects** in the code and verify proper feature implementations during **integration testing.**
- Modernized a legacy communication library including **automated testing and deployment** using a **Jenkins** pipeline job.

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

Club Matching Team

- Created a **web app** to match Penn State students to clubs and activities based on their interests and affinities; Penn State President Barron remarked, "[he was] surprised that Penn State didn't have something like this already."
- **Led a team of five** Penn State students through the proposal, prototype, and presentation phases of the Nittany AI Challenge; was one of the 30% of teams 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 developing a **Django web app** that provides schools and workplaces with the tools to manage the 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.

## EDUCATION

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

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

- **Relevant Coursework:** Data Structures and Algorithms, Operating Systems, Computer Organization and Design, App Development, Signal Processing, Computer Networking, Computer Vision

## RELEVANT SKILLS

**Programming Languages**

- Python, Java, C, C#, MySQL, HTML/CSS, Assembly

**Software Processes/Tools**

- Git, Linux, Jenkins, Atlassian Tools, Agile Methodologies, DevOps, OOP

## PROJECTS **2021**

**AI Tuft Analysis [C#/Unity]** - Designed a software process that takes in video data of tuft testing and maps it to the UV coordinates of a 3D model. Managed the project as the lead engineer and worked on 3D reconstruction and UV mapping in Unity. We placed 3rd overall out of 72 teams in Penn State's capstone showcase. sites.psu.edu/lfshowcasefa21/2021/12/09/ai-ml-tuft-data-processing/

**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

**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