

Joonho Jonathan Oh

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EDUCATION

Carnegie Mellon University

B.S. in Computer Science and Political Science, Security, and Technology

Atlanta, GA

May 2027

- **GPA:** 3.93
- **Relevant Coursework:** Data Structures and Algorithms, Discrete Math, Java Object Oriented Programming, C++ for Engineers, Calculus I & II, Computer Science Practicum, and Calculus-Based Physics.
- **Extracurriculars:** Men's Track and Field, Carnegie Mellon FSAE Racing, Carnegie Autonomous Racing, Table Tennis Club, and Korean American Students Association.

PROFESSIONAL EXPERIENCE

Johnson & Johnson

Software Engineer Intern

Cincinnati, OH

June 2023 – August 2023

- Worked on the **Surgical Robotics team** to develop efficient **Python scripts** to **manipulate a robotic arm's** surgical movements such as stapling, cutting, and stitching.
- Deployed **broadband tests** to get the robotic arm's frequency response to excitation signals and generated Bode, Nyquist, and Nichols Diagrams representing these responses.
- Tuned an Independent Stack Manipulator (ISM) to **dynamic models** of a robotic arm enabling more efficient testing without requiring the use of expensive robotic arm motors.
- Designed **efficient Python data type validation scripts** and **conversion tools** for the Eevee Data Visualization Tool, used to generate dynamic models and graphs from surgical tool data.
- **Optimized** existing **data validation algorithm run time** by using **Pandas'** vectorized data conversion and analysis tools which resulted in a **60.86% reduction in runtime**.
- Received the **Inspire Award** for outstanding contributions to the Surgical Robotics team

The Ohio State University College of Engineering

Computer Science Teaching Assistant

Columbus, OH

August 2022 – May 2023

- Hired as a high schooler to **lead 200 undergraduates** in **Data Structures & Algorithms** and **Java Programming**.
- Collaborated with the professor to **lead weekly labs**, **hold office hours 2x/week**, and **grade assignments**.

PROJECTS

[Angel Trading Company](#)

February 2024 – April 2024

- Spearheaded the **Front End Development** of a **trading marketplace** for Smiskis and Sonny Angels.
- **Led a team of 6 students as Scrum Master** with daily stand-ups, weekly sprint planning, and sprint reviews.
- **Automated production and testing builds** via a Netlify powered CI/CD pipeline using **GitHub actions**.
- Utilizes: React + Vite for frontend, Django for backend, S3 with Postgres for storage, and Clerk for User Auth.

[SWEdele](#)

January 2024

- **Full-Stack web game** to **guess and refine knowledge of** various **programming terms** based off Wordle
- Utilizes: React, JavaScript, MongoDB, HTML5, TailwindCSS, and Deployed on Netlify and Fly.io

[StockBot](#)

December 2023

- **Discord Bot** that **stores a watchlist of stocks** and **sends frequent updates** on price changes/profits/losses.
- Utilizes: Python, Pandas, Discord API, and Alpha Vantage API

SKILLS

- **Languages:** Java, Python, C++, C, JavaScript, HTML5, and CSS
- **Libraries/Frameworks:** Pandas, NumPy, SciPy, Django, React, MongoDB, Node, Next, Express, Tailwind CSS.
- **Technical Skills:** Data Analysis, Agile/Scrum, Microsoft Office, and Git