

Jonathan Oh

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EDUCATION

Carnegie Mellon University

Bachelor of Science in Computer Science

Pittsburgh, PA

August 2023 – May 2027

- **GPA:** 3.93/4.0
- **Coursework:** Data Structures and Algorithms, SML Functional Programming, C/C++ Programming, Java Object-Oriented Programming, Statistics and Probability, and Discrete Math
- **Extracurriculars:** ScottyLabs Full-Stack Developer, TartanHacks Organizer, and Computer Lab Operator

EXPERIENCE

Software Engineering Intern

June 2023 – August 2023

Johnson and Johnson MedTech

Cincinnati, OH

- Tuned a low-cost powertrain for a surgical robotic arm, by mimicking production motors' dynamic models from step inputs, resulting in an increase from 2 → 10 engineers able to test movement scripts at once
- Developed **Python data type validation scripts** for the Eevee Data Visualization Tool used company-wide to analyze surgical tools data, by adding **data type checks**, **eliminating errors** from **incorrect data types**
- Decreased runtime from **15.42s** → **3.12s** by refactoring conversion algorithms by integrating **Pandas**
- Received the **Inspire Award** for outstanding contributions to the Surgical Robotics team

Software Engineering Intern

January 2024 – August 2024

Angel Trading Co.

Atlanta, GA

- Led the development of the first marketplace with **2k+ monthly active users** for Smiskis and Sonny Angels
- Spearheaded a team of 6 as **Scrum Master** with daily stand-ups, weekly sprint planning, and sprint reviews
- Prototyped in Figma and then developed various pages and features such as: live chat powered by **socket.io**, contact form using **EmailJS**, Login/Register secured by **Clerk Auth**, and FAQ and 404 pages using **React**

Teaching Assistant

August 2022 – May 2023

The Ohio State University College of Engineering

Columbus, OH

- Taught 200 students **Big-O Time/Space Complexities, Linked Lists, Hashing, Sorting, and Searching**
- Led weekly labs, held office hours twice a week, and graded assignments

PROJECTS

SteerSafe | *Swift, Apple CoreMotion, Apple CoreLocation, Firebase, TomTom API*

October 2024

- **HackHarvard 2024 Smart Cities Finalist**
- Led a team of 4 to develop a **Swift iOS app** that promotes distraction-free driving with redeemable coins
- Leveraged **CoreMotion** to **track real-time phone usage via accelerometer**, providing instant reminders
- Implemented **CoreLocation** and **TomTom APIs** for **live speed tracking** and **alerts** with **95.8% accuracy**
- Integrated **Firebase** for authentication and **real-time data storage**, enabling tracking of driving stats, live leaderboard updates, and reward management

GradGoods | *React.js, Vite, JavaScript, Django, Python, OpenAI, Clerk, SQLite, AWS S3*

September 2024

- **HackMIT 2024 Sustainability Finalist**
- Developed an online market for students to securely and sustainably sell their belongings to incoming students
- Engineered **CRUD operations** using **Django** and **Python**, ensuring seamless marketplace actions
- Leveraged **OpenAI's GPT 4o-mini** model to swiftly and **precisely estimate pounds of waste reduced**
- Enforced an only student community with **.edu email validation** via **Clerk Authentication** and **JavaScript**

ApartMatch | *Next.js, JavaScript, Django, Python, Auth0, GoogleMaps API, PostgreSQL, AWS S3*

July 2024

- Built an online platform that streamlined the off-campus housing search for students by displaying live room availability in apartments, enabling users to instantly join open rooms with one-click suitemate matching
- Leveraged **Google Maps APIs** to **dynamically display maps** featuring only student-posted listings
- Developed **RESTful APIs** with **Django** and **Python** for seamless post, edit, update, and delete of listings

TECHNICAL SKILLS

Languages: Java, C, C++, Python, JavaScript, Swift, HTML, and CSS

Libraries/Frameworks: AWS, React, Node, Next, Express, Django, PostgreSQL, MongoDB, Tailwind CSS.

Other Skills: Data Analysis, Software Development Life Cycle, Agile, Scrum, Microsoft Office, and Git/GitHub