Joel Son

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Education

University of Michigan Ann Arbor, MI

Bachelor of Science in Computer Science *Aug. 2021 – May 2025*

- **GPA**: 3.7/4.0
- **Course Highlights**: Data Structures and Algorithms, Web Systems, Computer Organization, Foundations of Computer Science (Ongoing: Operating Systems**, Software Engineering**)
- **Honors/Awards**: University Honors, Regents Merit Scholarship, Korean Language Program Nam Essay Award

Experience

Code Platoon May 2023 - July 2023

DevOps and Cloud Engineering TA Intern *Chicago, IL*

- Taught core programming principles in Python to military veterans and spouses for an extensive 15-week period coding bootcamp
- Conducted instructive sessions on foundational concepts in data structures and algorithms to advance students' range of computer science skills
- Offered individualized mentoring support, guiding students in debugging and refining their scripting and configuration files for various technologies

Collaborative Lab for Advancing Work in Space (CLAWS) Oct. 2022 - Present

AR Team *Ann Arbor, MI*

- Developed an augmented reality space suit HUD with Unity Engine (C#) and Microsoft MRTK toolkit for the NASA SUITS Challenge, contributing to future NASA Artemis missions
- Implemented a text-messaging component that would communicate with other users and MCC (Mission Control Center)
- Oversaw the vitals subteam, tasked with creating multiple screens that tracked up-to-date vitals data of the user sent from a telemetry stream

Program Advancing Coding Comfort for Aspiring Biomedical Researchers Sept. 2023 - Present

Programming Education Committee *Ann Arbor, MI*

- Spearheaded the establishment of the programming education committee, playing a pivotal role in its inception
- Led and facilitated weekly student Python workshops and lectures in Jupyter Notebook for over 50 biomedical students, equipping them with essential skills in utilizing key Python libraries, including NumPy and Pandas
- Empowered students with hands-on experience in data visualization and manipulation, fostering a solid foundation in programming for biomedical research

Projects

Instagram Clone | Python, Flask, React.js, JavaScript, HTML, AWS EC2

- Full-stack social media web app with React.js front-end and Flask REST API for modern Instagram experience, including infinite scrolling, double-tap to like, user authentication, and account creation

Scalable Search Engine | Python, HTML, CSS

- Search engine to rank Wikipedia articles, employing custom multi-threaded MapReduce server, REST API for search results, and Google or Bing-like user interface

Weather App with Speech Recognition | JavaScript, HTML, CSS, openweather API, Web Speech API

- Weather web app using openweather API for real-time data and Web Speech API for speech-to-text integration

LingoLink Discord Bot | Python, googletrans API, AWS Polly API

- Discord bot enabling global communication via translation and text-to-speech commands with googletrans and AWS Polly APIs

Technical Skills

Languages: Python, C++, C, C#, JavaScript, Bash, Assembly, HTML/CSS
Frameworks: React, Flask
Developer Tools: Git, AWS, VS Code, Visual Studio
Libraries: pandas, NumPy, Matplotlib, Seaborn, Jinja