Heon Jwa

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EDUCATION

University of Washington - B.S. Computer Science Expected June 2025

Paul G. Allen School of Computer Science & Engineering Seattle, WA

- GPA: 3.88
- Relevant Courses: Data Structures and Algorithms, Foundations of Computing, Hardware/Software Interface, System and Software Tools, Computer Programming (II,III), Calculus with Analytic Geometry (III), Electromagnetism

EXPERIENCE

Software Engineer Intern June 2023 – August 2023

Puloon Technology Seoul, Korea

- Developed and integrated an UI for a banknote counter using the C# DataGridView class within Visual Studio which optimized memory management and led to better user experience
- Developed C++ automation scripts that exports aggregate functions of banknote dimensions to excel files which enhanced operational efficiency
- Built and ran functionality tests on 6-axis collaborative robots by using their operating system to test their safety and reliability

Teaching Assistant September 2023 – Present

Computer Programming III Seattle, WA

- Conduct biweekly sections for 20 students consisting of micro-lectures, practice problems, and quizzes
- Grade assignments/projects and tutor students 1 on 1 during office hours
- Teach subjects such as recursion, binary trees, linked-lists, and object-oriented programming in Java

Club Lead June 2023 – Present

Husky Coding Project Seattle, WA

- Prepare and present slideshows about programming topics such as SQL/NoSQL databases, Git/GitHub, and command-line interface to 100+ club members

Research Assistant December 2022 – June 2023

Sensors, Energy, and Automation Laboratory Seattle, WA

- Contributed in building the lab homepage for SEAL by working with professor and lab members using HTML/CSS, JavaScript, and WordPress

Programming Instructor July 2021 – September 2022

Code Ninjas Newcastle, WA

- Conducted lessons on game development using JavaScript to a class of 120+ students
- Tracked students' progress, graded assignments, and offered individualized support

PROJECTS

Global Sign-Language Translator | *React-Native, Python, Node.js, Flask, TensorFlow*

- Won the Best Accessibility Hack award out of a 100+ competing teams at DubHacks Hackathon
- Processed 45,000+ images to train a convolutional neural network model using TensorFlow that achieved 99% accuracy in recognizing international sign-language gestures
- Implemented as an iOS app using React-Native, enabling users to capture photos and receive real-time translations
- Designed a REST API using Flask for efficient data transmission

Recipe Generator | *Python, TypeScript, React, Flask, PostgreSQL, GitHub*

- Worked with a team of eight to develop a web application that generates recipes based on ingredients available
- Created the homepage UI by utilizing React which consists of the navigation bar and recipe display

SKILLS

Programming Languages: Java, Python, JavaScript, C/C++, C#, SQL, HTML/CSS
Frameworks: React, Node.js, Express, Flask, WordPress
Developer Tools: Git, GitHub, Visual Studio, VS Code
Languages: English, Korean