Soo Yeon Ahn

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Education

University of Illinois Urbana-Champaign (Aug 2021 – May 2025)

- B.S. in Mathematics and Computer Science (GPA: 3.7/4.0)
- Dean's List: Fall 2022, Spring 2023

University of Washington, Seattle (2020 – 2021)

- Biological and Physical Sciences (GPA: 3.99/4.0)
- Annual Dean's List: 2020 2021

Technical Skills

Programming Languages: C++, Python, Java, C, MATLAB, MySQL, MongoDB, Verilog, Haskell **Tools & Technologies:** OpenCV, Pytesseract, COM, Git, VSCode, Object-Oriented Programming (OOP)

Languages: Fluent in English & Korean, Intermediate Mandarin (HSK Level 4)

Work Experience

Dassault Systèmes, Korea (July 2023 – Jan 2024)

Software Engineer Intern

- Developed C++ and COM-based software for 3D modeling applications, enhancing functionality for 300,000+ organizations globally.
- Designed and implemented UI components using company's UI development system, improving user accessibility and workflow.
- Collaborated cross-functionally with engineers from multiple countries, contributing to global software development efforts.

Projects

Optical Character Recognition (OCR) App (Software Design Lab Project)

- Developed an **OCR-based application** using **OpenCV & Pytesseract**, allowing users to extract and highlight specific text from images.
- Applied **image processing techniques** to improve text recognition accuracy and performance.

Web Page Ranking Algorithm (Data Structures Project)

- Implemented a **PageRank algorithm** using **graphs and priority queues** to dynamically rank web pages based on search keywords.
- Utilized data structures and traversal algorithms to optimize ranking efficiency.

Image Processing Application (Intro to CS II Project)

- Built an application that applies **custom color filters** (Redscale, Greyscale, Bluescale, Greenscale) to images.
- Developed an additional mosaic filter for image blurring using matrix operations.

Teaching & Leadership Experience

University of Illinois Urbana-Champaign (Jan 2022 – May 2023)

Course Assistant - C++ Programming

- Led weekly discussion sessions (~20 students), teaching C++ fundamentals, data structures, and traversal algorithms.
- Assisted students 4–6 hours per week in debugging and problem-solving during office hours.
- Provided **one-on-one mentoring** and guided students through coding assignments and projects.