Soo Yeon Ahn

LinkedIn | Personal Website | GitHub

Education

University of Illinois Urbana-Champaign — Graduated May 2025
B.S. in Mathematics and Computer Science — GPA: 3.69/4.0
• Achievements: Graduated with Distinction in Math/CS (Department Honors); Dean's List (FA21, SP22)
University of Washington, Seattle — June 2021
Pre-Sciences (Transferred)
• Achievements: Annual Dean's List (2020 - 2021)

Technical Skills

• Computer Languages: Python, C/C++, SQL (MySQL), Java, TypeScript
• Infrastructure & DevOps: Docker, Google Cloud Platform (GCP), Shell, Git
• Systems & AI: High-Throughput Systems, Data Modeling, LLM Integration, API Integration, Data Processing

Work Experience

Dassault Systèmes — Jul 2023 – Jan 2024
Software Engineer Intern — Daegu, Republic of Korea (On-Site)
• Drove end-to-end technical delivery of C++/COM modules for an application in a platform of 300K+ users
• Ensured memory safety by fixing existing memory leaks in legacy codebase and preventing new ones during integration
• Developed automated test scripts using shell to benchmark performance and verify system stability after feature updates, establishing a robust regression testing workflow
• Designed and integrated UI components using proprietary frameworks, demonstrating the ability to customize and develop on complex, specialized platforms

Projects

C++ Limit Order Book (Solo) GitHub — Completed December 2025
• Engineered a high-performance C++ matching engine capable of processing 930,000 events/second
• Optimized order lifecycle management using red-black trees (std::map) and FIFO queue (std::list)
• System reached 49.84% quantity fill rate under various probabilistic loads
Generative AI Prototype (Solo) GitHub — Completed September 2025
• Engineered a Generative AI web application using TypeScript and the OpenAI API
• Designed and iterated on system prompts to ensure the model delivers concise, relevant responses
• Built a secure identity management flow using Google OAuth 2.0
OCR Handwriting Recognition (Team) — Completed December 2022
• Engineered a vision-first bounding box feature using OpenCV (cv2) and PyTesseract to segment handwritten words into individual character assets
• Developed an image processing pipeline in Python to automate character extraction and normalization for downstream machine-readable representations
• Implemented a deterministic export system using **Node.js** to package processed segments into structured assets for further model prediction

Teaching & Leadership

Computer Science Department (UIUC) — Jan 2022 – May 2023
Course Assistant (Introduction to Computer Science II) — Urbana, IL
• Led weekly lab sessions (~30 students) on C++ fundamentals and data structure algorithms
• Assisted hands-on debugging and personalized mentoring during 4–6 hours of office hours weekly
• Supported students in developing coding projects and improving problem-solving techniques

Languages

• English (Fluent) • Korean (Native) • Mandarin Chinese (Intermediate / HSK Level 4)