# Soo Yeon Ahn

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## **Personal Summary**

Software engineer with C++ development experience at Dassault Systèmes, contributing to modules used by 300K+ users. Proficient in backend development with expanding frontend skills. Strong academic foundation in algorithms, systems, and databases. Passionate about building performant, user-centric software.

#### **Technical Skills**

- Languages: C/C++, Python, Java, JavaScript, Haskell, MATLAB, Verilog
- Frameworks/Tools: OpenCV, Crow, Git, VSCode, COM, Visual Studio
- Databases: MySQL, MongoDB
- Version Control: Git (CLI), GitHub proficient with branching, merging, rebasing, resolving merge conflicts, and managing pull requests
- Other: Object-Oriented Programming (OOP), Test-Driven Development, (TDD), SDLC, Version Control

#### **Education**

## <u>University of Illinois Urbana-Champaign</u>

B.S. in Mathematics and Computer Science

• Achievements: Distinction Math/CS (Department Honors); Fall 2021, Spring 2022 (Dean's List)

University of Washington, Seattle

B.S. Biological and Physical Sciences (Pre-Sciences)

• Annual Dean's List: 2020 - 2021

Sep 2020 – May 2021 GPA: 3.95/4.0

• Transferred to UIUC after freshman year

## **Work Experience**

Dassault Systèmes

Jul 2023 - Jan 2024

Aug 2021 - May 2025

GPA: 3.69/4.0

Software Engineer Intern

Daegu, Republic of Korea (On-Site)

- Engineered and maintained C++/COM modules for enterprise 3D modeling software with 300K+ users
- Designed and integrated UI components using proprietary frameworks to improve UX
- Collaborated with international teams on cross-border software solutions and code reviews

## **Teaching & Leadership**

#### Computer Science Department (UIUC)

Course Assistant (Introduction to Computer Science II)

Jan 2022 - May 2023

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

## **Projects**

#### To-Do List Web App (Solo) Demo | GitHub

July 2025

- Developed a full-stack web application for managing personal to-do tasks with user authentication using Firebase
- Built with Flask, SQLite, and SQLAlchemy on the backend; implemented login/registration using secure password hashing
- Designed dynamic task UI using HTML/CSS/JavaScript, enabling users to create, display, and mark tasks in real time
- Applied modular Flask structure with routes, models, and templates for maintainable codebase

  <u>Maze Game</u> (Solo) <u>Demo</u> | <u>GitHub</u>

  June 2025
- Built a dynamic maze game using C++ and Prim's algorithm; deployed using Crow server
- Designed interactive UI with HTML/CSS/JS to display maze visualization in browser

#### Languages

- English (Fluent)
- Korean (Native)

Mandarin (Conversational)