COLLIN JUNG
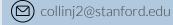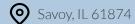
✉ collinj2@stanford.edu

📞 (217) 778-7328

📍 Savoy, IL 61874

TECHNICAL SKILLS

- Languages:
  - Python
  - Java
  - Javascript
  - C/C++
  - Wolfram Language
  - HTML/CSS
- Software:
  - Blender
  - Arduino
  - Unity
  - Mathematica
  - Microsoft Office
- OS:
  - Windows, Mac, Linux
- Fluency in Korean and English

SOFT SKILLS

- Coding and debugging
- Software Development Life Cycle (SDLC)
- Source code review
- Algorithms and data structures

PROFESSIONAL SUMMARY

Motivated and hardworking student completing a Computer Science bachelor's degree with a focus in Artificial Intelligence at Stanford University. Bright critical thinker with proven talent for learning quickly in a results-oriented environment, with 5 years of experience in a professional company work setting learning from veterans of the field.

EDUCATION

Stanford University Stanford, CA • Class of 2025 • 3.7 GPA

Bachelor of Science: Computer Science (Artificial Intelligence)

Relevant Coursework:

- **Systems:** Computer Organization and Systems (CS 107) / Operating Systems Principles (CS 111)
- **Security:** Intro to Cryptography (CS 255) / Intro to Cybersecurity (INTLPOL 268)
- **Depth:** From Languages to Information (CS 124) / Intro to Computer Graphics and Imaging (CS 148) / How to Make VR (CS 11SI)
- **Math:** Mathematical Foundations of Computing (CS 103) / Computational Logic (CS 157) / Linear Algebra, Multivariable Calculus, and Modern Applications (MATH 51) / Intro to Probability for Computer Scientists (CS 109)

WORK HISTORY

Wolfram Research - Software Developer Intern

Champaign, IL • 05/2018 - 05/2023

- **Extended functionality** of the Wolfram Language working closely with Kernel developers
- Prototyped **physics simulation of rigid-bodies** by combining the Wolfram language with external game physics engines
- Contributed to the **Wolfram Physics AR/VR applications** project with UI/UX design
- Developed graphing system functions related to constraint embedding and graph drawing
- Analyzed and created **visualizations for graph data** in the Wolfram Data Repository
- Established compatibility between the Mathematica interface and the Unity game engine

PROJECTS

Movie Recommending Chat Bot - *Winter 2023*

- Created a chatbot using **Python** that stores user ratings of movies and uses item-item collaborative filtering to recommend similar movies.

Encrypted Chat Client - *Winter 2023*

- Implemented an encrypted chat client in **Javascript** using the Double Ratchet Algorithm that ensures forward secrecy and break-in recovery.

Probability-Based Playlist Shuffler - *Autumn 2022*

- Created a music shuffling algorithm using **Python** that prioritizes less commonly played songs within a playlist using Bayes' theorem and probability analysis.

Operating System Shell - *Spring 2022*

- Developed sophisticated shell in **C++** that utilizes multiprocessing using fork, execvp, and waitpid system calls to handle multiple executable commands.

Heap Allocator - *Winter 2022*

- Implemented efficient implicit and explicit heap allocators in **C++** with malloc, realloc, and free functionality. Used gdb and Valgrind to track and manage allocated memory blocks.