Grace Jin

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY **Expected Graduation: May 2027**

Bachelor of Science, Computer Science, Minor in Electrical and Computer Engineering, GPA 3.0

Relevant Courses: Object Oriented Programming and Data Structures, Functional Programming, Digital Logic and Computer Organization, Digital Product Design, Statistics, Discrete Math, Linear Algebra, Introduction to Computer Graphics

Organizations: Rewriting the Code, Women in Computing at Cornell, Association of Computer Science Undergraduates

EXPERIENCE

Millenium, *Data Engineering Contractor* **October 2024-Present**

- Drive a market sentiment analysis by leveraging publicly available financial data and sentiment indicators to evaluate outcome impacts, presenting insights bi-weekly to business sponsors for financial outcome strategic alignment.

Robotoullie LLM Project, *Software Developer* **August 2024 - Present**

- Collaborate with a team of 12 developers to design and implement 10+ custom interactive elements for Robotouille in PDDL, expanding its LLM training task variety by 35%, subsequently contributing to more robust and adaptive model learning.
- Integrate an OAuth system with PostgreSQL, creating secure and unique login sessions for each client within Robooullie's environment.

Alpha CubeSat Mission, Cornell University, *Undergraduate Researcher/Publicity Lead* **January 2024 - Present**

- Optimize the mission's website loading speeds by 20%, and designed promotional graphics and mission patches, effectively increasing awareness of the satellite project to over 80 people. Regularly maintain and update the main page to ensure performance and fresh content.
- Conduct thorough testing protocols for flight software, including embedded integration testing to ensure mission readiness.
- Contribute to CubeSat hardware assembly, working with TeensyDuino, breadboard electrical wiring and satellite flight units.

UCSB ACTION AI Institute, Santa Barbara, CA, *Software Engineering Intern* **June 2024 - August 2024**

- Develop a Linux terminal-based program incorporating GDB and RR debugging techniques to find root vulnerabilities in C/C++ source code for UCSB's Security Lab in collaboration with professors and graduate students.
- Built a Python web scraper with BeautifulSoup to clean and collect 500+ MITRE CWE entries, used to fine-tune a GPT-4o-Mini model that outperformed the base GPT by 10-18%

LEADERSHIP AND INVOLVEMENT

Cornell Creative Technology Lab, *Developer* **October 2024 - Present**

- Developed 3D physics animations in Unity and C++ featuring models such as charges moving through electric fields.
- Integrated animations into lectures for a 400+ student electromagnetism course at Cornell.

Cornell XR (AR/VR) Club, *Design Lead* **October 2023 – Present**

- Managed a 3-D Unity-based escape room project with multi-user support, enhancing team skills in interactive game development.
- Lead board meetings with a team of 10 for updates, discuss technical projects and recruit members, doubling team size.

Social Media Influencer **August 2019-Present**

- Post graphic designs regularly to an audience of 20,000+ followers through videos and posts, yielding over 2M+ views.

PROJECTS

Interactive AI Companion | *Node.js, Python, JavaScript, Google Cloud APIs* **November 2024-Present**

- Use Google Cloud Speech-to-Text, Google Cloud Text-to-Speech, and OpenAI GPT-3.5 to develop a full-stack, voice-interactive 2D animated character program for real-time voice input transcription and AI voice output.
- Build and integrate a Node.js backend and JavaScript frontend to handle audio file uploads, API interactions, and dynamic voice responses, ensuring seamless communication between components.

Intelligent Scissors | *Java, Swing`* **May 2024**

- Developed a Swing-based image cropping tool with an intelligent scissors option, leveraging Dijkstra's algorithm for efficient edge detection, reducing cropping time by half, and increasing accuracy by 25%+.
- Enabled enables users to efficiently crop and save selected portions of images as transparent PNGs, enhancing usability and output quality.

NASA Consortium Technical Animation | *Blender, C#* **March 2024**

- Modelled the Monarch Chipsat and a 1:100 scale ratio of the Shackleton Crater on SOLIDWORKS and Blender, creating a visual demonstration for the Chipsat's launch onto the moon.

Math Teacher Friendship Sim | *Java, Bash, Photoshop* **May 2022**

- Used Apache Maven life cycle to build and program 8,000 lines of code in a team of 3 to create an interactive visual novel game hosted on Replit, resulting in over 100 plays by faculty and students.

SKILLS

Programming Languages: Python, Java, Kotlin, HTML, CSS, Javascript, Typescript, C++, C, OCaml

Developer Tools: React, Git, Github, Node.js, Three.js, MySQL, RESTful API, Flask, Bash, VsCode, Eclipse, IntelliJ, JavaFX, Langchain/Langgraph

Libraries: Pandas, Matplotlib, Neo4j

Other: Linux, Verilog, RISC-V, Blender, Figma, GNU Debugger, SOLIDWORKS, Arduino/TeensyDuino, Adobe Photoshop, Electronics Soldering