VINCENT JIANG

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EDUCATION

Cornell University — Ithaca, NY
Bachelor of Science in Computer Science — August 2021 — May 2025
- **GPA:** 3.9
- **Relevant Coursework:** Operating Systems, Functional Programming, Databases, Backend Development, Web Development, Systems Programming, Systems Engineering, Machine Learning, Algorithms, Object-Oriented Programming and Data Structures

WORK EXPERIENCE

Roblox — San Mateo, CA
Software Engineer Intern — May 2023 — August 2023
- Contributed to Roblox Studio by leveraging C++ to improve average plugin load time by over 15% through concurrent programming using fibers, avoiding unnecessary loads, and deferring loads until user-plugin interaction
- Developed robust infrastructure for a declarative plugin capabilities model, enabling versatile plugin behavior through the storage of plugin metadata and permissions in a manifest file
- Shipped initial use case for storing plugin-loading metadata inside plugin packages, allowing Studio-internal developers to publish more functional plugins to Roblox game developers

Yoomi — Ithaca, NY
Software Engineer Intern — August 2022 — Present
- Refactor and develop code in TypeScript responsible for motion-tracking, rendering logic, and animations on HTML5 Canvas to provide an interactive experience for physical therapy patients during exercise—Yoomi's mission as a startup
- Design robust test suites and fixtures with Jest to ensure precise rendering of pose estimation from captured key points from camera (OpenCV), and develop robust game logic that is scalable to new types of animations and user movements
- Revamped website with modern design, responsive UI, and component business logic implemented with React and Tailwind CSS

CAMPUS INVOLVEMENT

Ventures Accelerated — Ithaca, NY
Vice President of Engineering — August 2023 — Present
- Empower startups within the Ventures Accelerated community with technical guidance, driving innovation and success

Cornell Cup Robotics — Ithaca, NY
Software Engineer — February 2022 — Present
- Reduce user speech-to-text translation errors by 12% through machine learning and NLP as part of CS Chatbot team
- Integrate facial recognition commands into Chatbot UI and verify software correctness through regression and unit testing

Cornell University — Ithaca, NY
Course Consultant — January 2022 — January 2023
- Facilitated discussions and enhanced student understanding for Object-Oriented Programming and Multivariable Calculus

PROJECTS

Invited — *Python, Flask, SQLAlchemy, SQLite, Docker, Marshmallow* — April 2023 — May 2023
- Developed backend app using Python and Flask as part of Cornell AppDev hackathon (awarded Best Backend out of 15+ teams)
- Enable user registration, authentication, authorization, and CRUD operations on users and events by implementing RESTful API
- Ensure user data integrity and consistent API responses through data validation and serialization using Marshmallow

Towers of Hanoi — *JavaScript, HTML/CSS, React.js, Three.js, Firebase* — July 2022 — August 2022
- Web application and game based on the Towers of Hanoi math puzzle, where users follow a set of rules to move disks to towers
- Developed interactive component behavior and 3D rendering logic through React.js, react-three/fiber, use-gesture, and react-spring
- Employed OAuth 2.0 authentication and added database to store and fetch user game data using Cloud Firestore

Terrain Map — *Java, Swing, AWT* — June 2022 — July 2022
- 3D visualization tool for popular stochastic algorithms for fractal landscape generation that model Brownian motion: Midpoint Displacement, Diamond Square, and Perlin Noise

SKILLS

Programming Languages: Java, Python, C, C++, JavaScript, TypeScript, SQL, HTML/CSS, OCaml, Lua
Technologies and Frameworks: Git, React, Node.js, Flask, Docker, Postman, Django, Firebase, jQuery