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VINCENT JIANG

GitHub — github.com/vjiang10 Portfolio — vjiang10.github.io LinkedIn — linkedin.com/in/-vincent-jiang

EDUCATION

Cornell University — Bachelor of Science in Computer Science

GPA: 3.94

• Honors: Dean's List

• Relevant Coursework: Object-Oriented Programming & Data Structures, Discrete Structures, Computer System Organization and Programming, Trends in Web Development, Linear Algebra, Functional Programming, Algorithms, Machine Learning, Natural Language Processing, Systems Engineering Project

EXPERIENCE

Software Engineer — Cornell Cup Robotics

Ithaca, NY | Feb 2022 - Present

Ithaca, NY | Expected: May 2025

- Translate user speech inputs to text using machine learning and natural language processing as part of the CS Chatbot team for the C1C0 (an R2-D2-inspired robot) project
- Reduce user speech-to-text translation errors by 22% by implementing algorithms using Python, including Levenshtein distance, a metric for word similarity

Software Engineer Intern — *Yoomi*

Ithaca, NY | Aug 2022 – Present

- Refactor and develop code in TypeScript responsible for motion-tracking behavior, data collection, and animations on HTML5 Canvas to provide an interactive, gamified experience for in-patients in physical therapy during exercises
- Design robust test suites using Jest to ensure drawing from interpreted on-screen objects from camera (OpenCV) are accurate, efficient, and scalable to new types of animations and exercises

Tutor and Course Consultant — Cornell University

Ithaca, NY | Jan 2022 – Present

- Foster collaborative environments for student engagement and learning as part of the Engineering Learning Initiatives (ELI) program at Cornell Engineering
- Lead and instruct 20+ students in Object-Oriented Programming & Data Structures and Multivariable Calculus for Engineers
- Facilitate discussion classes and consultations, assist in exam and assignment grading, and promote student understanding of course materials, software tools, and programming practices

Resident Advisor — Cornell University

Ithaca, NY | August 2022 - Present

- Lead and inform 40+ first-year residents at Clara Dickson Hall on campus events, house rules, and community involvement opportunities
- Work and collaborate with the Dickson residential staff team to ensure resident safety, inclusion, and wellbeing

PROJECTS

Towers of Hanoi — *JavaScript, HTML/CSS, React.js, Three.js, Firebase*

July 2022 – Aug 2022

- Web application and game based on the Towers of Hanoi math puzzle
- Designed and programmed responsive user interface, dynamic component behavior, and 3D animations through React.js, reactthree/fiber, use-gesture, and react-spring
- Employed OAuth 2.0 authentication and added database to store and fetch user game data using Firebase
- Implemented heuristic algorithms to optimize solution animations to different puzzles: Standard, Adjacent, and Bicolor

Terrain Map — Java, Swing, AWT

June 2022 – July 2022

- 3D visualization tool for popular stochastic algorithms for fractal landscape generation that model Brownian motion, including Midpoint Displacement, Diamond Square, and Perlin Noise
- Developed GUI and implemented custom display features supported by StdDraw, a simple 2D graphics library

Choice Game — *C, ImageMagick*

Jan 2021 – Feb 2021

- A choice-based game run on the terminal that relies on user command-line inputs to narrate a picture-aided storyline
- Coordinated a three-member team in project design and coding process employing systems-level programming concepts: files, pointers, dynamic and static memory allocation, threads, and processes

SKILLS

Programming Languages: Java, C/C++, Python, JavaScript, Typescript, HTML/CSS, OCaml, Swift Technologies and Frameworks: Git, React.js, JUnit, jQuery, Jest, Node.js, AWS, Firebase