

Vienna Li

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EDUCATION

Cornell University, College of Engineering Ithaca, New York
B.S. in Computer Science and Electrical Engineering Expected May 2027
Related Coursework: Intro to Computing, Linear Algebra, Differential Equations, Lasers and Photonics, OOP and Data Structures, Digital Logic/Computer Org, Intro to Circuits

ENGINEERING AND LEADERSHIP EXPERIENCE

NASA Proposal Writing and Evaluation Experience Academy, Electrical Engineer Jan 2025 - Present

- Collaborated in a multidisciplinary team to identify and propose innovative solutions to NASA's challenges, culminating in a formal technical proposal. Gained in-depth knowledge of NASA's proposal creation and evaluation processes, including drafting quad charts, organizational charts, and shell documents

Cornell Unmanned Air Systems, Images Subteam Member Jan 2025 - Present

- Designed and implemented software for Raspberry Pi-based systems to manage hardware interfaces and execute autonomous photo capture, gimbal movement, and communication protocols for imaging systems
- Contributed to the development of imaging subsystems, including camera control, gimbal stabilization, and ground server integration for real-time data exchange. Leveraged Rust programming for efficient integration

Cornell Technology Consulting Club, Analyst August 2024- Present

- Spearheaded development of comprehensive scheduling website for local nail salon (over 100 customers on campus) enhancing operational efficiency and client accessibility with an intuitive user interface
- Provided strategic insights to businesses, applied skills in tech integration, market analysis, client engagement

RESEARCH EXPERIENCE

ASTRA Research Lab, Undergraduate Researcher Dec 2024 - Present

- Collaborated with Dr. Elaine Petro and Dr. Jonathan Lunine to conduct research on electrospray ionization source for spacecraft, enabling precise biomolecule measurements in space-based environments
- Participated in engineering a laser alignment system for a time-of-flight mass spectrometry setup, ensuring high accuracy and reliability in space instrumentation

Nitrogen Laser Project, Undergraduate Researcher August 2024- Present

- Designed and implemented pulse generator circuit for a nitrogen laser utilizing high-voltage capacitors, diodes, precision timing ICs, and fast-switching transistors, achieving optimal pulse duration and energy efficiency
- Integrated a trigger circuit to synchronize laser pulses with external equipment and conducted extensive testing and optimization of laser output, resulting in improved beam quality and stability

Data Inspired Young Analysts Program, Data Science Researcher June 2023 - August 2023

- Published paper titled, "Predicting Recidivism With ML: An Analysis of Risk Factors and Proposal of Preventions" in Journal of Student Research; Model achieved 80% prediction accuracy score
- Predicted recidivism rates using Decision Tree, Random Forest, and Gradient Boosted Tree algorithms and evaluated our models using risk assessment tools with UIUC and Princeton professors

PROJECTS

Garden Rescue App at Hydrangea Hacks (iOS App Developer) June 2021

- Implemented a mobile app which identifies types of plants and provides the user tips for care-takings using Google Teachable Machine, XCode, Figma, and a Tensorflow Image Classification Sample

AI Text Summarization Platform (Reboot Hackathon at Wayland High School) April 2021

- Created a platform that helps students take effective notes by harnessing Python's speech recognition library and NLTK library to recognize and summarize text. Achieved 2nd place out of 50+ teams in the hackathon

TECHNICAL SKILLS

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- Programming Languages: Java, Python, Javascript, Typescript, SQL, Swift, HTML/CSS, Rust
 - Frameworks/Libraries: React, Flask, NumPy, Matplotlib, Pytorch, Numpy, Kivy
 - Developer Tools: Git, Docker, VS Code, IntelliJ, Google Cloud
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