# Iram Liu

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### **EDUCATION**

Cornell University Aug 2021 — May 2025

Bachelor of Science in Computer Science

Ithaca, New York

- GPA: 3.7 | College of Engineering Deans List
- Relevant Coursework: Analysis of Algorithms, Object-Oriented Programming, Data Structures, Functional Programming,
   Computer System Organization, Discrete Mathematics, Networks, Probability, Statistics, Machine Learning, Linear Algebra

## **Experiences**

Union Pacific Railroad May 2023 — Aug 2023

Software Engineer Intern

Omaha, NE

- Reduced downtime of pricing team's data pipeline by 90% after deploying a 24/7 monitoring system for Apache Nifi Clusters
  that alerts support technicians of any errors or failures for prompt resolution
- Improved workflow efficiency by 50% and eliminated the need for login credentials through the integration of Single Sign-On authentication into the Apache Nifi dashboard
- Accelerated delivery of software updates by researching and implementing version control DevOps for Apache NiFi FlowFiles
  across Dev, Test, and Prod environments

# Cornell University - College of Engineering

Aug 2022 — Present

Teaching Assistant

Ithaca, NY

- Assisted 400+ students with course material and assignments during 1-on-1 office hours and on discussion forums
- Conducted weekly workshops for 20 students, emphasizing core concept review and problem-solving practice
- TA'ed for CS 2110 (Object Oriented Programming) & CS 3110 (Data Structures and Functional Programming)

Wohohiame Dec 2022 — Feb 2023

Software Engineer Intern

Remote

- Enhanced company website accessibility by 50% through implementation of screen reader compatibility and audio voice-overs
- Added cross-device responsiveness, improved link accessibility by adding breadcrumb navigation, and integrated Sanity.io to store articles, audio, and images

# **PROJECTS**

#### TrivAI iOS App — React Native, CV, AWS, OCR

Jan 2023 — May 2023

- Built and published an iOS app that generates review and trivia questions based on a user-specified topic to help students study
- Implemented image scanner and text recognizer framework to extract passages from textbooks and articles

# Options Pricing Model Implementation — Python, C++, Matplotlib

Mar 2023 — May 2023

- Researched and implemented options pricing methods, including Binomial Tree, Monte Carlo, and Black Scholes
- Evaluated accuracy of models on live and historical options chains across multiple sectors to discover optimal pricing models

#### Options Trading Bot — Python, Web Scraping, NLP

Oct 2022 — Dec 2022

- Strategically implemented long straddle strategy using sentiment analysis and implied volatility generating 60% ROI
- Web scraped Bloomberg news, using Beautiful Soup, to gather daily headlines used to predict stock movement

#### FiggieBot — Python, MongoDB, Websocket, FastAPI

Sep 2022 — Dec 2022

- Developed game engine for multiplayer and human vs AI modes, using Websockets for player communication
- Established and configured a MongoDB database to store all game actions and results which were used to train the AI model

# **SKILLS**

Languages Python, Java, OCaml, Javascript/Typescript, C, C++, HTML/CSS

Technologies/Frameworks Agile, Apache NiFi, AWS, Git, JIRA, JUnit, Matplotlib, Mockito, MongoDB, NumPy, Nuxt

Pandas, Postman, React, REST, Scikit-Learn, Selenium, Websockets

#### Extracurricular Activities

Cornell Data Science - Quantitative Finance Subteam Lead

Sep 2022 — Present

Cornell Buds Ultimate Frisbee - Captain

Aug 2021 — Present

United States Chess Federation Player - Rating: 1707

Sep 2012 — Present