

Ivan Lin

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EDUCATION

Rochester Institute of Technology

July 2021 - May 2026

Bachelor of Science in Software Engineering, Minor in Computer Science

Rochester, NY

- Courses: Software Architecture, Operating Systems, Object-Oriented Software Design, Relational Databases, Embedded Systems, Artificial Intelligence, Web Engineering, Analysis of Algorithms, HCI & UX Design

EXPERIENCE

Software Engineer Intern

May 2024 – Aug 2024

Georgia Tech Research Institute

Orlando, FL

- Spearheaded the development of a KML data management app using C# and WinForms, delivering easy access to training direct data modifications for stakeholders and elevating training efficiency by 90%
- Refined flight maneuver on VECTS UH-60M platform using C++ and WPF, improving simulation accuracy
- Constructed threat table parsers for the US Army, improving data processing efficiency in threat assessment
- Streamlined compliance and cut deliverable time by 20% by automating process of generating distribution reports
- Collaborated to revamp UI, enhancing UX and operational performance of ABE and FireFly training systems by identifying and rectifying 15+ critical bugs

Data Engineer Intern

June 2023 – Aug 2023

Integral Ad Science

New York, NY

- Collaborated in the development of an automated anomaly detection feature using Airflow DAGs, Docker containers, Plotly, and Spark queries to analyze over 15 petabytes of data daily
- Refactored EC2 Airflow instances to enable systematic monitoring and alerting of data trends and anomalies, integrating AWS SNS and Lambda for immediate notification of new impressions
- Enhanced ETL CI/CD pipeline efficiency through optimized query requests across BigQuery, Glue, and Snowflake

Machine Learning Research Assistant

Aug 2024 – Present

Center for Computational Relativity and Gravitation

Rochester, NY

- Developed a supervised neural network model with UC Irvine datasets, achieving 83.7% accuracy using PyTorch, CUDA, Scikit-learn, and XGBoost
- Currently working on refining machine unlearning in pre-trained gradient boosted neural networks

TECHNICAL SKILLS

Languages: Python, Java, C/C++, C#, JavaScript, TypeScript, HTML/CSS, Julia, Bash, Go

Frameworks: React, .NET, Angular, Django, Next.js, FastAPI, Flask, Maven, Spring Boot

DevOps: AWS, Google Cloud, Docker, GitLab, Jenkins, Airflow

Databases: MongoDB, PostgreSQL, MySQL, Snowflake, Kafka, Spark

Developer Tools: Git, JUnit, Pytest, Jest, Selenium, SonarQube, Jira, Unix/Linux, UML

PROJECTS

YC Analytics | *Python, Pandas, Kafka, Spark, Docker, Plotly*

- Constructed a data pipeline to analyze Y Combinator data from Kafka streams using Spark and Pandas, providing visual insights via Plotly

Wordle Together | *Go, TCP/IP, WebSockets*

- Built multi-threaded TCP server to host Wordle, supporting up to 20 simultaneous clients with minimal latency

Harmonify | *Embedded C, GPIO, USART, ADC/DAC, Interrupts*

- Constructed a MIDI player with Embedded C on an ARM Cortex-M4 board, integrating GPIO, USART, ADC/DAC, and interrupts for real-time communication between input and audio devices

Homelytics | *Python, FastAPI, Uvicorn, Scikit-learn, Pandas, Matplotlib*

- Full-stack application that allows user to compare housing price data for a given location; leveraged React frontend; Python with FastAPI backend with Uvicorn for Restful APIs; integrated clustering with Scikit-learn and Pandas