Ivan Lin

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EDUCATION

Rochester Institute of Technology Expected Graduation 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

TECHNICAL SKILLS

Languages: Python, Java, C/C++, C#, JavaScript, TypeScript, HTML/CSS, Julia, Bash, Go
Frameworks: React, .NET, Angular, Django, Next.js, FastAPI, Flask, Spring Boot
DevOps: AWS, Google Cloud, Docker, GitLab, Jenkins, Airflow
Databases: MongoDB, PostgreSQL, MySQL, Snowflake
Developer Tools: Git, JUnit, Pytest, Jest, Selenium, SonarQube, Jira, Unix/Linux, UML

EXPERIENCE

Software Engineer Intern May 2024 – August 2024

Georgia Tech Research Institute *Orlando, FL*

- Spearheaded the development of a KML data management app using C# and WinForms, elevating training efficiency by 90%
- Refined flight maneuvers on VECTS UH-60M platform, enhancing training accuracy by 40% with C++ and WPF
- 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
- Bolstered operational performance of ABE and FireFly safety systems by 40% through rigorous optimization and rectifying 15+ critical bugs

Data Engineer Intern June 2023 – August 2023

Integral Ad Science *New York, NY*

- Engineered a containerized application for automated anomaly detection using Docker, Plotly, PySpark, and SQL queries to analyze 15+ petabytes of daily data
- Refactored EC2 Airflow instances for real-time alerts on trends and irregularities, integrating AWS SNS and Lambda to track new impressions
- Enhanced ETL pipeline efficiency by reducing latency by 15% through optimized query requests across BigQuery, AWS Glue, and Snowflake

Machine Learning Research Assistant August 2024 – Present

Center for Computational Relativity and Gravitation *Rochester, NY*

- Developed a supervised model with 340k data points, achieving 81% with parameters using PyTorch, Scikit-learn, and XGBoost
- Currently working on refining machine unlearning in pre-trained gradient boosted neural networks.

Data Science Research Assistant August 2023 – December 2023

Computational Biomedicine Lab *Rochester, NY*

- Collaborated on a research paper investigating the correlation between domestic abuse and substance usage
- Developed Deep Forest, Random Forest, and Gradient Boost regression models with XGBoost, Pandas, PyTorch, and Scikit-learn, boosting data accuracy by 30% to support predictive analysis in biomedical research
- Migrated existing datasets to Cloud Storage and used BigQuery to reduce analytics time by 60%

PROJECTS

Wordle Together | *Go, TCP/IP, WebSockets* October 2024

- 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* May 2024

- 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* March 2024

- Full-stack application that gives user comparative housing price data analysis; leveraged React frontend; Python with FastAPI backend with Uvicorn for server communications; integrated data clustering with Scikit-learn and Pandas