

Jimi Xia

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EDUCATION

Rensselaer Polytechnic Institute

Aug 2022 – Dec 2025

Bachelor of Science in Computer Science, GPA: 3.62/4.0

Troy, NY

- Relevant Coursework: Data Structures, Algorithms, Computer Architecture, Software Engineering, Operating Systems, Database Systems

TECHNICAL SKILLS

Languages: Python, Java, C/C++, JavaScript, TypeScript, SQL (PostgreSQL), Go, HTML/CSS

Frameworks & Libraries: React, Node.js, Django, Flask, TensorFlow.js, MediaPipe, Pandas, NumPy, XGBoost, LightGBM, Machine Learning, AI

Developer Tools: Git, Docker, Kubernetes, Linux, MongoDB, SQLite, REST APIs, CI/CD, Agile/Scrum

EXPERIENCE

Machine Learning Engineer

Jan 2026 – Present

MiRABO Biotechnology

Shanghai, CN

- Developed a hybrid regression model achieving 0.737 Spearman correlation across 379 samples by combining ESM-2 embeddings, physicochemical descriptors, and CDR-level feature engineering using Python and scikit-learn
- Built an ensemble machine learning model achieving 0.823 Spearman correlation and 49.2 cP MAE across 67 samples using sequence-based feature extraction and cross-validation pipelines

Computer Science Instructor

Jun 2025 – Aug 2025

Queens College

Queens, NY

- Designed Python and C++ lab assignments covering algorithms, data structures, and problem-solving for 150+ students in an introductory CS curriculum
- Automated grading workflows for 150+ students using Makefiles and Bash scripts, reducing evaluation time by 75%

Open Source Developer

Aug 2024 – Dec 2024

Rensselaer Center for Open Source

Troy, NY

- Integrated SPIFFE/SPIRE-based workload identity into a hybrid cloud system to automate service authentication and provisioning across distributed microservices
- Automated UUID-based Docker container tracking with database indexing, improving accuracy by 30% and enabling audit logging across 500+ containers

Software Engineer Intern

Jun 2024 – Aug 2024

Electrophoretic Mass Spectrometry Technology (EMAST) Corp.

Auburn, CA

- Increased data processing throughput by 20% by building Python-based analysis and automation tools for scientific instrument workflows
- Developed C++ software for real-time serial communication with laboratory hardware, reducing workflow delays by 30%

PROJECTS

RehabGames | *JavaScript, HTML5 Canvas, TensorFlow.js, MediaPipe, Django, SQLite*

Oct 2025

- Built a full-stack web application for webcam-driven physical therapy using pose estimation with TensorFlow.js and MediaPipe for real-time body tracking
- Implemented a Django REST API with SQLite backend for user session management, gameplay data storage, and progress tracking

NYC Basketball Courts Finder | *HTML, JavaScript, Leaflet.js, Turf.js, GeoJSON*

Apr 2025

- Developed an interactive map application displaying 500+ NYC basketball courts using open data APIs, custom markers, search functionality, and geospatial filtering with Turf.js

Moments | *JavaScript, React, MongoDB, Node.js, REST API*

Oct 2024

- Developed a full-stack mobile application with video recording, upload, and public/private sharing via Vimeo API integration
- Designed and implemented a MongoDB-backed friend list system with CRUD operations for social networking features

CentTrack | *JavaScript, React Native, Mobile Development*

Oct 2023

- Built a cross-platform mobile app with React Native featuring authentication, budgeting, subscription tracking, and spending analytics with data visualization