

Xiaomin Liu

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Education

New York University

Bachelor of Arts in Computer Science

May 2026

New York, NY

GPA: 3.8

Activities and Honors: Presidential Honors Scholars Program (Top 10%) | CAS Scholarship (full-ride) | BUGS@NYU (Open Source Club) Developer | Tech@NYU Tech Trek Mentor

Relevant Coursework: Data Structures | Fundamental Algorithms (TA) | Operating Systems | Parallel Programming | Programming Languages (Graduate-level) | Computer Systems Organization

Experience

Niantic - Software Engineer Intern (Pokémon GO: Maps/Explore/AR Team)

May 2024 - Present

Bellevue, WA

- Java, C#, Unity, Google Cloud Platform, SQL, gRPC, Apache Beam, Google BigQuery*
- Processing OpenStreetMap water-polygon geodata with Google BigQuery to eliminate an estimated 10% of unnecessary ocean spatial entities in spawn point, POI, and weather Apache Beam dataflows
 - Developed a distributed, linear-time quadtree merging algorithm for normalizing S2 cells to compress ocean geodata from 4 billion (25 GB) to 8 million rows (10 MB), achieving a 99.96% storage reduction while preserving area coverage
 - Integrated Sentry into Pokémon GO's Debug menu to streamline the bug triaging process and capture additional relevant metadata such as build type, trainer name, and app version

New York University - Research Assistant

Mar 2024 - May 2024

New York, NY

Python, pandas, Google AppSheet, Google Sheets API, Legiscan API

- Automated the process to add and update legislative bills to Google Sheets, saving 10+ hours of weekly searches
- Built a Legiscan API client running on a cron-based Python script, increasing the number of tracked bills by 175% by retrieving the latest bill information from Legiscan every week

Vantage - Software Engineer Intern

July 2023 - Oct 2023

New York, NY

Ruby, Ruby on Rails, JavaScript, HTML, PostgreSQL, Azure, Temporal

- Launched Azure Active Resources, an Azure resource utilization and costs tracking feature that enables 20,000+ users to cut down on spending by identifying and eliminating inactive resources still incurring costs
- Designed and built a Temporal pipeline that concurrently updates ~100,000 records by leveraging Azure's REST APIs to fetch resource metadata across 30 different Azure services
- Secured a two year, \$125,000/year contract with our biggest Azure client with the Azure Active Resources release
- Integrated line graphs using HTML, JavaScript, and Chart.js to visualize related resource costs over 30-day periods

Projects

[\[github.com/xl4624\]](https://github.com/xl4624)

Chess with Friends

Python, Flask, JavaScript, Socket.IO, PostgreSQL, HTML, CSS, Docker

- Led a team of 3 to develop an online multiplayer chess website where users can challenge others via links
- Implemented real-time updates to the chessboard and move history table using Flask and Socket.IO, and added a chat feature for players to communicate during matches using JavaScript and HTML

Sudoku Solver

Go, JSON, HTTP

- Built a CLI web scraper that fetches and solves the latest Sudoku puzzles from sudoku.au using a depth-first search backtracking algorithm prioritizing the most constraining cell

Skills

Languages: Python, Rust, Java, C, C++, JavaScript/TypeScript, Ruby, HTML, SQL, CSS

Technologies: pandas, NumPy, Ruby on Rails, React, Flask, Django, PostgreSQL, MongoDB, Git, Docker, Azure, GCP

Concepts: Software Engineering, Data Structures and Algorithms, Backend, Full Stack, Web Development, API Development, UNIX Environment, DevOps, Game Development, Compilers, Augmented Reality, Distributed Systems