Xiaomin Liu

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Education

New York University   *May 2026*
Bachelor of Arts in Computer Science   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
Java, C#, Unity, Google Cloud Platform, SQL, gRPC, Apache Beam, Google BigQuery   Bellevue, WA
- 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, parallel quadtree merging algorithm for normalizing S2 cells, compressing ocean geodata from 4 billion (25 GB) to 8 million rows (10 MB) to achieve a ~99.96% storage reduction while preserving area coverage
- Integrated Sentry into Pokémon GO's Debug menu to to gather User Feedback and capture additional relevant metadata such as build type, trainer name, and app version to streamline the bug triaging process

New York University - Research Assistant   Mar 2024 - May 2024
Python, pandas, Google AppSheet, Google Sheets API, Legiscan API   New York, NY
- 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
Ruby, Ruby on Rails, JavaScript, HTML, PostgreSQL, Azure, Temporal   New York, NY
- 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]

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