Xiaomin Liu

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Education

New York University *May 2026*
Bachelor of Arts, Computer Science **GPA:** 3.8
Honors: Presidential Honors Scholars Program (Top 10%) | CAS Scholarship (full-ride)
Activities: BUGS@NYU Developer | Tech@NYU Tech Trek Mentor | Barbell@NYU
Relevant Coursework: Data Structures | Basic Algorithms (TA) | Operating Systems | Parallel Programming Programming Languages (Graduate-level) Computer Systems Organization

Experience

Niantic - Software Engineering Intern May 2024 - Present

Java, C#, Unity, Google Cloud Platform

- Joining the Pokémon GO: Maps/Explore/AR Team to build a new feature for Pokémon GO's 80 million monthly players

New York University - Research Assistant March 2024 - May 2024

Python, pandas, Google AppSheet, Google Sheets API, LegiScan API

- Automated a data collection process to add and update legislative bills in a Google Sheet, saving 10+ hours per week of manual searches
- Increased the number of tracked bills by 175% (from 400 to 1,100) by developing a LegiScan API client and a cron-based Python script to retrieve the latest bill information from LegiScan weekly.

Vantage - Software Engineering Intern July 2023 - Oct 2023

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

- Launched Azure Active Resources, an Azure resource utilization and costs tracking feature that enables 6,500+ 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]

RCC (Current)

Rust, C, LLVM

- Building a C Compiler with a handwritten lexer and recursive descent parser, targeting LLVM IR

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

Debugging Memory Allocator

C++

- Created a memory allocator in C++ using a linear, sorted free list of metadata headers to manage memory blocks
- Implemented methods for splitting oversized freed memory blocks and coalescing adjacent blocks

Sudoku Solver

Go, JSON, HTTP

- Developed 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, Lua, SQL, CSS, Bash
Technologies: pandas, NumPy, Ruby on Rails, React, Flask, Django, PostgreSQL, MongoDB, GraphQL, Git, Docker, Azure
Concepts: Software Engineering, Data Structures and Algorithms, Backend, Full Stack, Web Development, API Development, UNIX Environment, DevOps, Compilers, Augmented Reality, Distributed Systems