

Xiaomin Liu

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Education

New York University

May 2026

GPA: 3.8

Bachelor of Arts in Computer Science (with Honors)

Coursework: Operating Systems, Database Systems (grad), Programming Languages (grad), Parallel Computing

Honors/Awards: Presidential Honor Scholar (top 10% of class), College of Arts and Sciences Scholarship (full-ride)

Experience

NYU High Speed Research Network Lab

Sep 2024 – Present

New York, NY

Research Assistant

- Implementing features in Rust for Corelink, a low-latency networking framework for research applications

NYU Courant Institute of Mathematical Sciences

Sep 2024 – Present

New York, NY

Teaching Assistant

- Holding weekly office hours and grading assignments for over 100 students in CSCI-UA 310: Basic Algorithms

Niantic

May 2024 – Aug 2024

Bellevue, WA

Software Engineering Intern – Pokémons GO: Maps/Explore/AR Team

- Processed coastline data in BigQuery to define invalid ocean regions, removing 8 billion Pokémons spawnpoints
- Reduced weather API calls by 78% by implementing Java logic to disable ocean updates, saving \$280k annually
- Developed a distributed quadtree merging algorithm using Apache Beam, compressing ocean geodata by 99.1%
- Integrated Sentry into Pokémons GO's client using C#, .NET and Unity to monitor unhandled exceptions/crashes

NYU Center on Race, Inequality, and the Law

Mar 2024 – May 2024

New York, NY

Research Assistant

- Automated the bill searching process to Google Sheets, saving lawyers 10+ hours a week on manual searches
- Developed a Legiscan API client with Python and Pandas to increase bills by 175% and track status updates

Vantage

July 2023 – Oct 2023

New York, NY

Software Engineering Intern

- Launched Azure Active Resources, a Ruby on Rails feature that filters Azure spending by resource metadata
- Designed a Temporal Workflow to concurrently retrieve 100,000+ metadata records from 30 Azure services
- Added multi-series line graphs using HTML and JavaScript to visualize resource costs over 30-day periods

Projects

S2shell | Rust, C++

- Ported Google's S2 Geometry Library to Rust for robust computational geometry and spatial indexing
- Created a custom linear algebra module supporting 2D and 3D vector operations like dot and cross products

Multiplayer Chess | Python, Flask, JavaScript, WebSocket, SQL (PostgreSQL), HTML, CSS, Docker

- Led a team of 3 in developing an online multiplayer chess website where users can challenge others via links
- Implemented real-time board updates, move history table, and chat feature using JavaScript and HTML

Skills

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

Technologies: Pandas, NumPy, Unity, .NET, Django, Flask, Docker, Azure, GCP (BigQuery, Dataflow, GCS), Linux

Concepts: Computer Networking, Distributed Systems, Backend, Cloud Computing, Web Development, Compilers