

## Education

### New York University

Bachelor of Arts, Computer Science

May 2026

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 | 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, gRPC

- 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 to 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 building a LegiScan API client and a cron-based script in Python 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 [\[github.com/xl4624\]](https://github.com/xl4624)

### RCC (Current)

Rust, C, LLVM

- Engineering a C Compiler with a handwritten lexer and recursive descent parser for generating 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](https://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, (Neo)Vim

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