

Christopher Liu

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EDUCATION

Rochester Institute of Technology | Rochester, NY | **GPA: 4.00** *Expected Dec 2026*

- **Pursuing Bachelor of Science in Computer Science**, Mathematics Minor, Artificial Intelligence Minor
- **Selected Courses:** Machine Learning, Artificial Intelligence, Parallel and Distributed Systems, Graph Theory, Operating Systems, Database Management, Cryptography, Probability & Statistics, University Physics I & II

WORK EXPERIENCE

Fidelity Investments Boston, MA

Software Engineer Co-op *Jan 2026 - Present*

- Worked within Advanced Strategies and Research to support quantitative researchers with new alternative data ETL pipelines collectively loading 100,000+ dataset rows daily into Snowflake, Oracle DB, and Amazon S3.
- Designed & maintained 20+ Python web scrapers utilizing Playwright and Selenium for data extraction.
- Prototyped an LLM-powered self-healing web scraper framework to automatically detect and repair broken webpage selectors in extraction, reducing reliance on manual maintenance for scraper upkeep.
- Built a Python/Flask dashboard for quantitative narrative analysis, orchestrating processing pipelines across Dow Factiva datasets and Bloomberg Terminal feeds to surface consumer, economic, & job sentiment signals.
- Developed automated Python tooling to accelerate Google Review data collection and AI sentiment analysis by 80%; identified & resolved a pre-existing production bug that lost 20,700+ rows of data.
- Onboarded data pipelines to data quality monitoring, configuring automated anomaly detection and threshold alerting to flag data ingestion irregularities before they propagate to downstream models.

Rochester Software Associates Rochester, NY

Software Engineer in Test Co-op *Jan 2025 - Aug 2025*

- Spearheaded the expansion of a large-scale TestNG-based Java automated testing framework for QDirect, bolstering application stability and test coverage for Selenium-driven unit and integration tests.
- Consolidated the testing stack by migrating a library of legacy Python unit tests into a new Java framework.
- Engineered additional tests and functionality for the testing framework to cover new software features, streamlining future testing efforts and boosting the reliable pass rate of tests for new releases by 20%.

Frozen Software Austin, TX (Remote)

Software Engineer Intern *Jan 2023 - Dec 2023*

- Led redesign of subscription retention flow (backend & frontend). Increased retention by 30% by using React, TypeScript, and MongoDB to show potentially retainable customers different offers.
- Reduced React dashboard API request volume by 50% via caching and eliminating redundant calls.

PROJECTS & LEADERSHIP

WA Stock Market Simulator | *Personal Project*

- Created a stock trading simulation software enabling user competition in trading imitation stocks & assets.
- Utilizes job scheduling and the Yahoo Finance API to populate a database with updated trading information.
- Developed with TypeScript and PostgreSQL, with a focus on database design and CI/CD pipelines.

RIT Computer Science Community | *Executive Board Member*

- Delivered lectures on computing-related topics and research in conjunction with professors.
- Applied problem-solving in Java, Python, and TypeScript in a competitive programming environment.

SKILLS

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

Libraries & Frameworks: NumPy, Pandas, Playwright, Selenium, React, Spring, Angular, Express, TailwindCSS

Databases & Data: Snowflake, PostgreSQL, MongoDB, Oracle DB, Amazon S3, Tableau

Tools & Platforms: AWS, Docker, Git, Linux, Autosys, ETL/ELT, CI/CD, Google Cloud, Maven, DataGrip