ANDREW C. PHOTINAKIS
Email || LinkedIn || GitHub || Website

OBJECTIVE
Passionate and results-driven 4th-year student at Rochester Institute of Technology, seeking a Software Engineering internship. Eager to apply my combined expertise in Computer Science and Finance to develop solutions to impactful problems. Available for May 2025 – August 2025.

EDUCATION

Rochester Institute of Technology (RIT)   **Rochester, NY**
Bachelor of Science in Computer Science (May 2026)   Fall 2021 – Spring 2026
Minor in Finance – (*): Taking course Fall 2024
- Awards/Honors: Dean's List Spring '22, Fall '22, Fall '23 & RIT Presidential Scholar
- Computer Science Coursework: Intro to Artificial Intelligence*, Machine Learning*, Programming Language Concepts*, Principles of Data Mining*, Concepts of Computer Systems, Concepts of Parallel & Distributed Systems, Principles of Data Management, Intro to Software Engineering, Analysis of Algorithms, Mechanics of Programming, Intro to CS Theory, Discrete Mathematics for Computing
- Finance/Economics Coursework: Financial Management II*, Intro to Options & Futures*, Financial Management I, Financial Accounting, Principles of Microeconomics
- Organizations/Clubs: Computer Science Community, Financial Management Association, Intramural Soccer
- RIT Employment: Calculus Teaching Assistant (August 2022 – January 2023)

WORK EXPERIENCE

TechSource, Inc.   **Germantown, MD**
IT Software Engineering Co-op – (**Azure Functions, Java, SQL, Azure Data Factory, Git, Swagger, SOAP API**)   January 2023 – Present
- Lead the creation of a fully automated exchange **Data Pipeline** in **Java** using **Azure Function Apps**, reducing original execution time by **98%**, resulting in significantly faster processing, increased accuracy, enhanced flexibility, and lower costs.
- Utilized **Swagger APIs**, **SOAP APIs**, **Java libraries**, and **OOP Programming** principles for data manipulation, cleaning, and extraction, achieving a 99% accuracy in data transfer while ensuring modular, maintainable code with dynamic flexibility.
- Leveraged **TypeScript**, **React**, **TailwindCSS**, and **NextJS** to create reusable and responsive UI components for the U.S. Department of Energy's **Generative AI Model** using **GPT-4**, enhancing UI flexibility and increasing user satisfaction and performance.
- Developed an automated reporting system using Power Automate Flows and Java Excel Libraries, which generates detailed daily reports on data pipeline executions and sends them to high-level business teams, resulting in efficient tracking of data exchange.

Herrick Technology Laboratories (HTL)   **Germantown, MD**
Software Engineering Co-op – (**C++, Git, REST API, Angular, Typscript, XML, CMake, Bash, DLL**)   May 2023 – August 2023
- Accomplished seamless integration between HTL radios and third-party software by collaborating closely with industry professionals and a third-party company, developing a dynamic linking library using **Boost C**++ libraries and **DLL** interfaces.
- Optimized information flow between systems by enhancing collaborative software development skills, leading to the design and implementation of the dynamic linking library, which improved data capture and **Vita49** stream generation through the software interface.
- Elevated UI testing efficiency by creating **Selenium**-based automation scripts in **Python** using the **PyTest** framework, ensuring the functionality and usability of various HTL integrated services.
- Ensured accurate network packet transmission and reception by utilizing **Wireshark** for hardware testing on radio devices, contributing to protocol analysis and validation.

PROJECTS

TradeSync   **Darnestown, MD**
Personal Project – (**Java, Spring Boot, OOP, Multithreading, RESTful APIs, JavaScript Libraries, TailwindCSS**)   July 2024 – Present
- Developed a real-time, full-stack trading simulator using **Java Spring Boot**, **OOP programming**, **multithreading**, **WebSocket Protocols**, **RESTful APIs**, and **network programming**, resulting in a competitive & collaborative trading environment including strategy back testing with a dynamic, low-cohesive backend API for accurate data transmission.
- Incorporated **React**, **TypeScript**, and **TailwindCSS** to design a fully responsive UI, displaying user trade history, account balances, chart drawings, and selected technical indicators, ensuring a dynamic, interactive experience for analyzing and visualizing stock data.
- Managed data storage with **PostgreSQL** to handle user information, historical equity prices, and trading history, enabling performance analysis and ensuring a scalable, high-performance database for robust data management.

WebFinvizAPI   **Rochester, NY**
Personal Project – (**Java**, **Spring**, **JUnit**, **JSoup**, **Postman**, **Git**, **JWT**, **MVVM**, **REST API**, **JSON**, **NoSQL**)   August 2023 – December 2023
- Engineered a flexible **MVVM** architecture in developing a sophisticated **RESTful API** using **Spring Boot**, **Java**, & **Maven**, achieving efficient financial data retrieval from Finviz.com by incorporating **JSoup** for advanced web scraping. Facilitated efficient data storage in **JSON** files, setting the groundwork for seamless **NoSQL** database integration.
- Validated API endpoints with **JUnit** testing to ensure precise data extraction, transformation, & storage processes, enhancing overall data accuracy & functionality.
- Strengthened API security and access control by implementing **JSON Web Tokens** for enhanced user authentication and authorization, while integrating advanced rate limiting mechanisms to ensure responsible web scraping and adherence to Finviz.com's usage policies.

SKILLS AND LANGUAGES (EXCLUDING PROJECTS & WORK EXPERIENCE)
- Tools & Technologies: Visual Studio Code, MongoDB, JetBrains IDEs, Visual Studio C++, Docker, JUnit, Postman
- Skills: Object-Oriented Programming, Web Development, Project Management, Problem Solving, Critical Thinking