Paul Kratsios

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EDUCATION

Rensselaer Polytechnic Institute – *Trov. NY*

B.S. Computer Science and Cognitive Science, Minor in Finance

Capstone Concentration: Artificial Intelligence and Data

Awards: Dean's Honor List (Fall 2020, Fall 2023), Rensselaer Leadership Award

WORK EXPERIENCE

Machine Learning Engineer Intern

May 2024 – August 2024

Expected: Dec 2024

CyberSaint Security – Boston, MA (Remote)

- Led the design and development of a project to quantify reputation damage from cyber attacks by assessing equity losses, market share, competitor performance, and market sentiment
- Analyzed, modeled, and benchmarked machine learning models to predict financial loss from cyber attacks
- Maintained a cyber-focused IBM WatsonX LLM used to generate actionable insights on cyber attacks
- Developed crosswalks for cyber risk frameworks to enhance predictive accuracy and risk assessment

Data and Finance Intern

Jun 2023 – Aug 2023

Parkbridge Financial – New York, NY

- Collected and organized essential data from over 100 commercial mortgage-backed security contracts
- Used Excel VBA to aggregate, arrange, and format data from multiple sources

Data Science Intern

Sep 2022 – Dec 2022

Kapitus – New York, NY (Remote)

- Aided in the development of an application that leverages a proprietary risk score model to price loans accurately
- Created a system to reorganize the team's test code to be more readable, editable, and efficient
- Implemented policy and pricing decision rules created by the Risk Team

Software Engineer Intern (iOS Mobile Development)

May 2022 – Sep 2022

HiroFit - Trov. NY

- Led iOS development for HiroFit, a machine learning-based fitness app
- Designed and implemented the front end of HiroFit's iOS app using Swift

PROJECTS

Dinder Web App – Full Stack Web Application (Team Lead)

Jan 2024 – Present

- Built a group dining decision-making platform using the MERN stack
- Integrated Google APIs for autocomplete, map visualization, and restaurant retrieval, to enhance user experience
- Designed a React frontend and scalable Node is backend with MongoDB for seamless real-time interactions

Undergraduate Thesis – Adaptive Agents in Uncertain Environments

Spring 2024

- Developed a dual-learning reinforcement algorithm for variations of the Monty Hall problem
- Enabled an agent to optimize decision—making while accurately recognizing diverse cognitive traits

Hockey Puck Tracking System

Sep 2023

- Developing a real-time puck-tracking algorithm using computer vision and machine learning for improved detection
- Working towards synchronizing stick movements with the tracked puck to create an immersive training experience

SKILLS

Treasurer

Technical: Python, C/C++, SQL, Javascript, HTML, CSS, R, Swift, MERN, Pandas, NumPy, Beautiful Soup, OpenCV **Operating Systems:** MacOS, Windows, Unix *Certifications:* Lifeguard, CPR, First Aid, AED, Mental Health

EXTRACURRICULARS

Theta Xi Fraternity

Recruitment Chairman

Sep 2023 – Dec 2023

- Utilized data analytics to drive decision-making, optimizing recruitment efforts and monetary efficiency
- Orchestrated strategic recruitment campaigns and led a cohesive team to attract outstanding individuals

Created and managed a budget of \$400k per year

Jan 2021 – Dec 2021

• Collaborated with Alumni Association, National HQ, and campus administrators to build community relations

RPI American Collegiate Hockey Association Men's Ice Hockey Team

Fall 2020 - Present

Eagle Scout – Scouts BSA Troop 1 – New York, NY

Athletic Achievements

2x IRONMAN 70.3, 2x Spartan Trifecta, America Coast to Coast Bike Tour