Alexander Rutherford-Parish

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Objective

Undergraduate student pursuing Computer Science and Financial Management seeking a Fall 2025 internship in software engineering, data science, and/or financial roles. For educational experience.

Education and Training

University of Waterloo *Sep 2023 - Present*

Bachelor of Computing and Financial Management (Computer Science and Finance double major)

- Coursework: Data Structures, Algorithms, Financial Markets, Investment Management.
- Proficient in Python, Java, C, C++, and Assembly through academic and personal projects.
- Exemplary time management balancing varsity swimming and academic responsibilities.

Experience

Data Engineering Intern *Jan 2025 - Apr 2025*

Plant & Environmental Sciences, New Mexico State University

- Used transfer learning through Python's Tensorflow to further develop and train a U-net-based deep learning model tasked with image classification of dry-land ecology through Maxar/NASA satellite imagery.
- created labeled datasets using 200GB+ of land coverage data for integration into a U-Net-based deep learning model to improve ecological monitoring resulting in major increases to accuracy.

Technology and Business Assistant *May 2024 - Aug 2024*

The Experimental Leader Academy, Sage Portfolio Group

- Utilized Excel to analyze and manage large data sets related to 32 mineral rights across 7 US counties, improving efficiency in data retrieval.
- Assisted in setting up, recording, and post-production of multiple podcast episodes, ensuring high-quality content delivery.
- Proposed and updated the company website using WordPress, increasing site traffic.

Coding Consultant (Volunteer Position) *Sep 2021 - Sep 2023*

Human Development Lab, McMaster University

- Conducted data analysis using Python, transforming extensive data frames to streamline research processes, reducing costs and time by over 95%.
- Developed customized Python scripts to automate data processing tasks, enhancing the lab's research efficiency.

Projects

News AI: Deep Learning Model *Jan 2025 - Present*

- Developed and trained a deep learning model for real-time news sentiment analysis to predict changes in market prices. Using TensorFlow.

Personal Website *Dec 2023 - Present*

- Independently crafted a personal website with HTML, CSS, and JavaScript: xanderrp2.github.io.

Group Competition: Robo-Portfolio Maker *Oct 2023 - Dec 2023*

- Automated stock portfolio builder using Python, Numpy, Pandas, and finance.

Design Competition: iOS Mental Health App *Aug 2022*

- Developed an award-winning mental health app using React, Swift, and Xcode, securing a $1,000+ prize and a partnership offer with the Brilliant Catalyst startup incubator at Ontario Tech University.

Volunteer Work

Alliance Learn to Swim *Sep 2023 - Present*

- Volunteered on behalf of the UW varsity swimming team.

Community Volunteer Work *Sep 2019 - Jun 2023*

- Contributed 300+ hours to various community projects.

Competencies and Qualifications

Technical Skills

- Programming Languages: Python, Java, C, C++, JavaScript, SQLite, Ruby, Bash, Linux, Git, R, Assembly.
- Data Analysis Tools: Excel, Power BI, Tableau, Jupyter Notebook, Numpy, Pandas, TensorFlow.
- Web Development: WordPress, HTML, CSS, React.

Core Competencies

- Fluent in both English and French (written and spoken).