

Arjunvir Sidhu

asidhu17@uoguelph.ca | linkedin.com/in/arjunvir-sidhu | github.com/rjnvr | +1(437)770-9365 | arjunvirsidhu.com

WORK EXPERIENCE

Junior Technical Analyst (Co-op)

Sept 2023 - Dec 2023

Ministry of Transportation Ontario (MTO)

Toronto, ON

- Developed an intuitive chat application using Streamlit with Python to streamline the business analysis process, **aiming for a 150% user base increase** by automating data retrieval (CSV) & data visualizations
- Presented the application to shareholders and management, securing API key approval for the team
- Implemented Azure OPENAI's API for NLP to automate the conversion of text to SQL queries and text to visualization code (Python)
- Created AI system prompts, optimized API costs, & collaborated with architects on application design
- Developed comprehensive knowledge transfer documents and project recommendations to facilitate a smooth transition for the team and push the project to production

Screener & Data Entry

May 2020 - April 2023

Schlegel Villages

Mississauga, ON

- Implemented an automated data entry program, resulting in \approx **85% reduction in downtime** previously dedicated to manual data entry
- Interacted with a database on a daily basis to keep client's screening and testing information/visitation history

EDUCATION

Bachelor of Computing Honours, Computer Science (Co-op)

Expected Graduation, Apr. 2026

University of Guelph

Guelph, ON

- Awarded \$3000 entrance scholarship & Member of Google Developer Student Club
- Relevant Courses: Discrete Structures, Linear Algebra, Object-Oriented Programming, Data Structures, Software Systems Development and Integration, Operating Systems, Analysis and Design of Computer Algorithms

Data Analytics Professional Certificate

Jul. 2023 – Dec. 2023

Google

Coursera

- Demonstrated hands-on experience with data cleaning, data visualization, project management, interpreting and communicating analytical findings

PROJECTS

Automated Investment Portfolio | Python, Pandas, NumPy, C#, NinjaScript (2023)

- Created a portfolio of 5 automated futures trading strategies with low correlation **returning \approx 7% monthly**
- Conducted Monte-Carlo, walk-forward & correlation analyses, including slippage & commissions in the back-testing for each strategy

Option Pricer | Python, NumPy, SciPy, Streamlit (2023)

github.com/rjnvr/option-pricer

- Implemented the Black-Scholes model to accurately determine option prices using NumPy and SciPy (norm)
- Incorporated key variables such as underlying asset price, strike price, time to expiration, volatility, and risk-free interest rate, resulting in highly accurate and reliable pricing predictions

Molecule Visualizer Database | Python, C, SQLite, JavaScript, jQuery, AJAX, HTML/CSS (2023)

- Created a full-stack app that lets users upload .cif files, parsing them into SVG format for display. Integrated SQL database for storing and retrieving molecule data
- Leveraged Python web server hosting, coupled with jQuery and AJAX, to ensure smooth functionality and interactive components within the application

Portfolio Website | JavaScript, React.js, HTML/CSS (2023)

github.com/rjnvr/portfolio-website

- Developed a responsive portfolio website, implemented EmailJS API to build an interactive contact form on the web page for convenient contacting
- Leveraged React Hooks and event listeners to create dynamic user experiences, ensuring reliable performance by hosting the website on Hostinger

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, SQL, Java, C#, R

Frameworks and Libraries: React.js, Streamlit, Pandas, NumPy, Java Swing, JUnit, jQuery/AJAX

Tools: Git, APIs, Linux/UNIX, AWS, SQL Server Management Studio, Informatica Developer (IDQ), Azure DevOps