

ALEX LEVESQUE

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Education

Queen's University

Bachelor of Engineering in Applied Mathematics and Computer Engineering

Sep. 2024 – Apr. 2029

Kingston, Ontario

Relevant Coursework

- Engineering Design
- Engineering Graphics
- Computer Programming
- Engineering Chemistry
- Calculus I, II
- Linear Algebra
- Physics I, II
- Experimentation

Projects

Stock Price Prediction Project Using Machine Learning | *Python, Pandas, NumPy, Scikit.learn, YFinance, Matplotlib*

- Developed a machine learning pipeline using Python and Random Forest regression to predict stock prices, achieving a low Mean Squared Error (MSE) through data preprocessing, feature engineering, and model training.
- Implemented financial data analysis using Yahoo Finance API, leveraging key market features such as daily returns, volume, and price trends to generate actionable insights and visualizations.

AI and Machine Learning in Financial Forecasting Paper | *Artificial Intelligence*

- Authored a comprehensive article on AI-driven financial forecasting, highlighting machine learning techniques like Random Forests and their advantages over traditional models such as ARIMA and GARCH.
- Explored ethical challenges of AI in finance, including the "black box" problem, regulatory compliance, and equitable access, proposing solutions to enhance transparency and accountability.

Various Engineering School Projects | *SolidWorks, C++, Python, Arduino IDE, NumPy, Matplotlib*

- Collaborated with a team of 5 to prototype two tables modeled with mathematical curves for the legs, performing stress analysis to ensure structural integrity under specified weight limits.
- Co-designed a prototype automated water treatment system using Arduino IDE, incorporating a 3D-printed powder dispenser and turbidity sensors to improve water purity by 50% through automated quality monitoring.

Extracurricular Experience

Music Production Business

CEO and Founder

Sep. 2018 – Present

Ottawa, Ontario

- Received a GRAMMY Award for Best Rap Album (Killer Mike - MICHAEL, 2024).
- Built a diverse client base across 30+ countries, serving world-renowned record labels and over 1000 monthly users on an e-commerce website.
- Spearheaded sales and marketing campaigns for myself and multiple organizations, driving brand growth and generating \$50,000+ in gross income.
- Produced and composed chart-topping music for platinum artists like Polo G, Offset, Peso Pluma, etc., and labels such as Universal, Sony, Warner, Atlantic, etc.

Queen's University Artificial Intelligence Club

Research & Development | Paper Author

Sep. 2024 – Present

Kingston, Ontario

- Performed an in-depth analysis of evolving copyright laws in generative AI, focusing on the intersection of intellectual property and emerging technologies.
- Conducted a detailed investigation into advanced cryptographic techniques, including homomorphic encryption and federated machine learning, to address privacy and security concerns in AI training.
- Investigated the ethical implications of generative AI, proposing frameworks to ensure transparency, consent, and fair compensation for creators while fostering innovation.

Technical Skills & Interests

Bilingual: Fluent in English and French.

Languages: Actively learning Python, C/C++.

Developer Tools: Microsoft Office 365, Git, SOLIDWORKS, Arduino IDE, Jupyter Notebook.

Frameworks/Libraries: Pandas, NumPy, Matplotlib, Scikit.learn, YFinance.

Interests: Music, Karate Black Belt, Motorsports, College Football, Classical Piano, Guitar, Weightlifting.