

Om Patel

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EDUCATION

University of Toronto | Toronto, Ontario

September 2023 – May 2027

B.S. in Computer Science and Physics | GPA: 3.44/4.0

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, HTML, CSS

Framework/Libraries: PyTorch, TensorFlow, Scikit-learn, Pandas, Matplotlib, Qiskit (IBM Quantum computing), React

Tools/Technologies: Linux (Kali), Unix, Git

PROJECTS

Sentiment Analysis for Predicting Stock Trends

Tools: Python, PyTorch, Scikit-learn, Pandas, Matplotlib

- Implemented sentiment analysis on over 1.7 million data points, comprising tweets and financial news articles, by leveraging FinBERT and RoBERTa models to accurately gauge market sentiment.
- Integrated sentiment scores with historical stock data, utilizing advanced data preprocessing and feature engineering techniques, enhancing market forecasting capabilities and providing actionable insights for financial decision-making.
- Developed and trained predictive models in PyTorch, applying rigorous hyperparameter tuning and validation processes, which resulted in a 70% accuracy in forecasting stock price movements.

Quantum Computing Simulations and Qiskit Summer School

Tools: Python, Qiskit, IBM Quantum Platform

- Explored quantum circuit transpilation and execution on noisy hardware, focusing on quantum combinatorial optimization and Hamiltonian dynamics.
- Simulated and tested quantum circuits on the IBM Quantum Platform, gaining hands-on experience with advanced quantum tools and demonstrating their application in cutting-edge computational problems.
- Investigated quantum machine learning techniques, highlighting the potential of quantum algorithms to enhance traditional machine learning methods.

Blocky Game

Tools: Python, PyGame

- Applied critical thinking and problem-solving to design and develop a game using PyGame, leveraging object-oriented programming and recursive algorithms to address complex design challenges and optimize gameplay.

Portfolio Website

Tools: HTML, CSS, JavaScript, React

- Designed and developed a personal portfolio website to showcase projects, skills, and provide a contact form via EmailJs.

RELEVANT EXTRACURRICULARS

Volunteer Placement Specialist | PICS | Surrey, BC

JUNE 2023 – August 2023

- Streamlined volunteer placement processes and led sustainability projects aligned with UN Sustainable Development Goals (SDGs), showcasing leadership in global initiatives and enhancing operational efficiency.
- Exhibited strong organizational skills by creating and managing a comprehensive volunteer placement database, which improved coordination and engagement with educational institutions and NPOs.

ACOMPLISHMENTS

- Ranked 19th out of 14,000 in HPE Code Wars competition, awarded cash prize for performance.
- Python for Everybody Specialization Certificate, earned on Coursera in April 2023, comprising 5 courses.
- From Big Bang to Dark Energy by University of Tokyo Certificate obtained on Coursera.