Virat Talan

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Education

University of Toronto (Victoria College)   **Sep 2023 – Present**
Bachelor of Science in Computer Science, Statistics and Economics   *Toronto, ON*

Relevant Courses: Data Structures and Algorithms, Databases, Software Design, Computer Architecture

FTLI: Selected for the TLI 2024 cohort from 400+ students to collaborate on a real-world project with Cash App

International Scholar Award: Awarded a $100,000 merit scholarship out of 15,000+ international students

Clubs/Extracurriculars: UTMIST, IEEE, UofT Web Dev Club, UofT AI, Game Dev Club

Experience

Web Developer   **Sep 2024 – Present**
VUSAC Mental Wellness Commission, Victoria College   *Toronto, ON, Canada*

- Led the **SDLC** from requirements gathering to deployment, delivering a scalable and maintainable website
- Collaborated with a team to develop a **React**-based frontend & **Python-Flask** backend, ensuring seamless integration
- Increased **traffic by 30%** by optimizing performance and accessibility, improving engagement and usability

Software Developer   **Sep 2024 – Dec 2024**
Technology Leadership Initiative (FTLI X CashApp)   *Toronto, ON, Canada*

- Developed a bias detection platform with a team of **6 developers**, analyzing bias across **20+ demographic categories** to enhance fairness in financial transaction models
- Built a **Flask-based backend** and interactive **React** dashboard with **Chart.js** for visualizing bias trends, enabling users to compare fairness metrics across different models
- Contributed to weekly **Agile Scrum sprints**, using Jira to track progress and deliver a modular solution that followed the **SDLC** from start to finish

Software Developer Intern   **May 2024 – July 2024**
Unico Connect   *Mumbai, MH, India*

- Developed a client-facing web application using **React** and **Python**, meeting client needs and improving responsiveness
- Built & optimized **RESTful APIs** and improved **PostgreSQL** query performance by **20%**, streamlining data retrieval
- Improved code quality by conducting **code reviews** and writing tests, reducing bugs by **10%** before production

Projects

Horizon News Hub | *JavaScript, React.js, Redux, Axios, Docker, Bootstrap, Netlify*   **Mar 2025**

- Built a **full-stack** news aggregator fetching **100+** daily articles by integrating multiple APIs for real-time updates
- Enabled users to curate feeds **2x faster** with personalized filters for categories and sources, improving relevance
- Optimized deployment with **Docker**, ensuring consistent performance and reducing manual setup time by almost half

TransitFlow: TTC Delay Predictor | *Flask, React, Scikit-learn, Pandas, Numpy, MySQL*   **Feb 2025**

- Built full-stack app with React and Flask, integrating a **75% accurate** Random Forest model for TTC delay predictions
- Developed machine learning pipeline with **Scikit-learn** and **Pandas**, predicting delays from **4,800+ samples**
- Used **MySQL** to store TTC data and integrate the machine learning model, streamlining the data retrieval

US Senate Stock Insights | *Python, Flask, yFinance, Plotly, MatplotLib, Git, Github*   **Mar 2024**

- Built **Flask API** to fetch and process **100,000+** stock transactions from **yFinance**, enabling efficient data handling
- Leveraged **NetworkX** for graph analysis to uncover relationships in stock data, identifying signs of suspicious trading
- Developed interactive visualizations with **Plotly** and **Matplotlib**, providing actionable insights into stock transactions

Skills

Languages: Python, Java, JavaScript, SQL (PostgreSQL, MySQL), HTML, CSS, R, C/C++, MIPS Assembly
Frameworks and Libraries: React, Next.js, Flask, Tailwind CSS, Bootstrap, Pandas, Numpy, Scikit-learn, TensorFlow
Developer Tools/Methodologies: Git, GitHub, Figma, Docker, R Studio, Power BI, WordPress, Agile, Scrum, SLDC