Neil Varshney

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Education

Carleton University

Ottawa, ON

Sen

Bachelor of Computer Science

Sept 2023 - Present

- Field: Computer & Internet Security
- o **CGPA:** 10.75/12 (A-)
- o Awards: Dean's List (2x), Chalmers Jack MacKenzie Scholarship, Henry Marshall Tory Scholarship
- Relevant Coursework: Abstract Data Types & Algorithms, Applied Crypto & Authentication, Intro to Software Engineering, Fundamentals Web Applications, Discrete Structures II

Technical Skills

Front-End Development: JavaScript, TypeScript, React.js, Next.js, Tailwind CSS, CSS, HTML

Back-End Development: SQLite, Flask, FastAPI, RESTful APIs, Node.js, Deno Languages & Tools: Python, Java, C++, C, GitHub, Git, npm, Unix/Linux, VS Code

Machine Learning & AI: PyTorch, Pandas, NumPy, Scikit-learn, Natural Language Processing (NLP)

Projects

Fake News Detector | ML, Python, JavaScript, React, SQLite, HTML/CSS

☐ Fake-News-Detector ☑

- Engineered a fake news classifier using Python, BERT embeddings, and logistic regression (scikit-learn) to analyze text patterns, achieving 98.8% accuracy and 99.0% precision on 8,000+ held-out test articles
- Architected **RESTful API** with **JWT authentication** and **SQLite**, implementing secure user registration/login with password hashing and protected endpoints for news analysis requests
- Developed full stack application with React.js frontend and Flask backend, supporting concurrent user sessions, persistent history tracking, and real-time confidence score visualization for enhanced user engagement

Anime Haven || LLM, Python, JavaScript, React, FastAPI, SQLite, HTML/CSS

↑ Anime-Haven ☑

- Developed a full-stack anime recommendation chat-bot using React.js frontend and Python FastAPI backend, serving personalized anime suggestions through natural language processing and AI integration
- Implemented real-time conversational AI features using React Hooks for state management and **GROQ** inference engine achieving **0.80-second** average response times
- Engineered a responsive user interface with real-time typing animations and markdown support, implementing secure user authentication and **SQLite** database integration for persistent chat history

Personal Website | TypeScript, React, Next.js, Node.js, Tailwind CSS, HTML

● Personal-Website 🗹

- Developed a modern, responsive portfolio website using **Next.js** and **Tailwind CSS**, implementing advanced animations and smooth scrolling with Framer Motion and Lenis for enhanced user experience
- Engineered interactive UI components including dynamic typing animations and scroll-triggered reveals, demonstrating proficiency in modern frontend development and animation libraries
- Built a modular, maintainable code base with **TypeScript** and component-based architecture, highlighting software engineering principles and clean code practices

Extracurricular Activities

Carleton Computer Science Society: Member

 $Sept\ 2023-Present$

Intermurals Soccer: Participant

Sept 2024 - Present