Vineet Panchal

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EDUCATION

Toronto Metropolitan University

Toronto, ON

Bachelor of Science in Computer Science

Expected April 2027

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, C/C++, SQL, TypeScript, Swift

Tools/Technologies: Next, React, Flask, Firebase, Express, Django, MySQL, PostgreSQL, Docker, Spring Boot Certifications: IBM Cloud and Computing, Frontend Development Libraries, JavaScript Algorithms & Data Structures, Foundational C# With Microsoft

EXPERIENCE

Headstarter AI

The Circle Labs

Software Developer Fellow | Next, React, OpenAI, Firebase, Supabase, Docker

July 2024 – Sept 2024

New York, NY

- Developed AI-powered web applications using Next, React, and OpenAI, improving user engagement by leveraging dynamic UI components and intelligent state management, resulting in a more interactive user experience.
- Improved system performance by optimizing API calls, reducing latency, and implementing server-side rendering, while ensuring seamless database management for structured data storage.
- Engineered API systems to streamline OpenAI model interactions while implementing scalable back-end architectures with Firebase and Supabase to optimize real-time data handling and authentication.

Frontend Developer Intern | React, TypeScript, Express, Node, MongoDB

May 2024 – July 2024

Toronto, ON

- Designed and developed an engaging and informative website highlighting the organization's mission and impact. Delivered a seamless and high-quality UI/UX experience, receiving positive feedback for its functionality.
- Developed the back-end functionality of the website using Node.js and Express.js and implemented MongoDB databases to ensure secure user authentication and data integrity.

President & Teacher

Oct 2022 – June 2023

St. John Paul II Secondary School

Toronto, ON

• Led a coding curriculum for high school students, teaching Python, Java, and JavaScript. Enabled hands-on learning through real-world projects. Fostered a collaborative tech community, strengthening their technical skills.

Projects

Teach For Cambodia | Next, React, Supabase, TypeScript, Material UI

- Developed a teaching platform for Teach For Cambodia, improving remote education accessibility and enabling seamless communication between students, instructors, & admin with Supabase and Google Authentication.
- Implemented a course management system with real-time updates, enabling educators to seamlessly create, edit, and organize lessons for students. Added dynamic search for easy course navigation.

Smartdeck | Next, React, Firebase, OpenAI, Material UI, Clerk, Stripe

- Created a web app that generate dates intelligent flashcards for educational use, enhancing learning experiences through personalized AI-driven content, using OpenAI's API.
- Integrated Clerk for user authentication, Firebase for data storage, and Stripe for secure payment handling.

Fashion Disaster Avoider | Next, React, OpenAI, Material UI

- Developed an AI-powered chatbot that provides real-time, fashion advice, helping users refine their style choices.
- Integrated OpenAI's API to analyze outfit combinations and trends, delivering instant, personalized recommendations.

Rate My Professor | Next, React, Pinecone, OpenAI, Material UI

- Built a comprehensive AI-powered assistant using Retrieval Augmented Generation (RAG), enabling students to receive real-time, detailed feedback on professors and courses by integrating external knowledge bases.
- Streamlined user experience by integrating a vector database with a large language model for accurate responses.

A-Star Pathfinder Visualizer | Python, Pygame

• Designed an interactive visualizer for the A-Star pathfinding algorithm using Pygame, enhancing user understanding through dynamic demonstrations.