

Nikhil Sharma

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PROFESSIONAL SUMMARY

A dedicated Computer Science student at York University with a strong software engineering background. Co-founded TheGuides, an AI Chatbot using OpenAI's GPT Model. Leading multiple developers to collaborate on projects for Lassonde Blockchain Association. Skilled in TypeScript, Python, Java, ReactJS, NextJS, and FastAPI.

EDUCATION

Lassonde School of Engineering, York University
Bachelor of Science: Computer Science

Toronto, Canada
Jan 2021 – Present

SKILLS

Programming Languages: Python, TypeScript, JavaScript, Java, HTML, CSS/SCSS

Libraries and Frameworks: ReactJS, NextJS, FastAPI, Langchain, ExpressJS, Tailwind CSS, Postman API

Database: PostgreSQL, TiDB Serverless (MySQL), SQLAlchemy, PlanetScale, Prisma, FAISS, Chroma

Additional Tools: WordPress, Figma, Canva, Microsoft Office

EXPERIENCE

Lassonde Blockchain Association – York University
Software Engineer

Toronto, ON
Feb 2023 – Present

- Leading a team of 10 software developers for various software development projects covering both Web2 and Web3 technologies.
- Analyzing the Web3 market by conducting research on DeFi and NFT using raw blockchain data from Ethereum, Opensea, Uniswap, etc. by creating **PostgreSQL** queries and dashboard on Dune ([link](#)).
- Collaborated on **LBA – Blog** ([link](#)) project at Lassonde Blockchain Association, utilizing **Sanity CMS** and implementing, **TypeScript**, **NextJS** and **Tailwind CSS** for front-end development. Hosted the platform on **Vercel** for seamless deployment.
- Coordinated with the Social Media team in creating social media campaigns over Discord and Instagram.

TheGuides (Full-Stack) ([Devpost](#) | [Website](#))

Co-founder

July 2023 – Present

Objective: Developed personalized AI chatbot with a vision on helping students and professionals with studying and asking questions.

- Utilized **OpenAI's API** to develop the chatbot, enabling it to receive user input and provide responses.
 - Developed front-end components on **NextJS** with **Typescript**, implementing **Tailwind CSS** for styling.
 - Implemented **Langchain** to chain prompts and utilized recently introduced **Function Calling** feature of GPT.
 - Used **FastAPI** to build a lightweight and fast server that runs the model, leveraging **SQLAlchemy** to develop database. Hosted on cloud using **TiDB Serverless**.
 - Incorporated **FAISS** along with OpenAI Vector Embeddings for text file vectorization.
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PROJECTS

Marketing Discord Bot ([Github](#))

Discord API, Python, Langchain, Chroma, OpenAI API, Stable Diffusion API

Objective: Developed an AI Discord Bot with the purpose of generating posts, captions, and SEO optimized content for various social media platforms.

- Leveraged **Langchain** for prompt chaining and integrated it with **Discord API** to create a functional discord bot.
- Currently integrating Stability AI's **Stable Diffusion API** to generate posters for social media posts using SDXL.
- Utilized **Chroma** in combination with OpenAI Embeddings for text file vectorization.

Similarity API (Full-Stack) ([Github](#) | [Website](#))

NextJS, Typescript, Tailwind CSS, Prisma, PlanetScale, GoogleAuth

Objective: Developed a full-stack API service website using NextJS, while seamless integration between frontend and backend.

- Implemented rate-limited and protected API routes, along with a authentication system and an API key system for user key management.
- Designed a visually appealing website with light/dark mode using **TypeScript**, **Tailwind CSS**, and optimized performance through **PlanetScale** database.

GPT Restaurant Bot (Back-End) ([Github](#))

FastAPI, SQLAlchemy, SQLite, Python, Langchain, FAISS, OpenAI API

Objective: Developed the AI bot that is powered by OpenAI's GPT-3.5-Turbo that can handle orders and reviews from the customer.

- Utilized **Langchain** to chain prompts and leveraged the recently introduced Function Calling feature of GPT.
 - Used **FastAPI** to build a light and fast server to run the model while utilizing **SQLAlchemy** to develop local database using **SQLite**.
 - Employed **FAISS** along with OpenAI Embeddings for text file vectorization.
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HACKATHONS

TiDB Future App Hackathon 2023

July 2023 – August 2023

- Created AI personalized AI chatbot with a vision on helping students and professionals with studying and asking questions.
- Ranked in the top 60 out of 1490+ participants.
- Utilized TiDB's serverless database (MySQL) capabilities to create a full stack application.

UN Hack 2022 – BEST Lassonde, York University

November 2022

- Prepared business pitch for a social media mobile application aimed at bringing the student community at York University closer.
- Ranked in the top 10 out of 120 participants.