Nikhil Sharma

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EDUCATION

Lassonde School of Engineering, York University   *Toronto, Canada*
Bachelor of Science: Computer Science   Jan 2021 – Present
London School of Economics – University of London (SIM Global Education)   *Singapore*
Bachelor of Science: Economics and Management   September 2019 – August 2020

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

EXPERIENCE

Lassonde Blockchain Association – York University   *Toronto, ON*
Software Engineer   Feb 2023 – Present
- Analyzing the web 3.0 market by conducting research on DeFi and NFT using raw blockchain data from Ethereum, Opensea, Uniswap, etc. by creating **PostgreSQL** backed 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 (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.

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 (Github | Website)   *NextJS, Typescript, TailwindCSS, 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**, **TailwindCSS**, and optimized performance through **PlanetScale** database.

GPT-Restaurant-Bot (Github)   *FastAPI, SQLAlchemy, SQLLite, Python, Langchain, FAISS, OpenAI API*
Objective: Developed the AI bot that 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 **SQLLite**.
- Employed **FAISS** along with OpenAI Embeddings for text file vectorization.

VOLUNTEER

WISER WORLD   *New Delhi, India*
Co-founder and Editor   Apr 2020 – Aug 2021
- Co-founder of a research articles-based website using WordPress.
- Conducted virtual interviews with over 600 candidates for internship positions and provided mentorship to over 50 interns in content writing roles.
- Proofread and edited article submissions, ensuring high-quality content.
- Implemented SEO optimization strategies for article submissions.
- Hosted webinars featuring delegates from distinct institutions from Singapore, Sweden, and the United Kingdom.