

Vibhor Sharma

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Education

University of Waterloo

Sept 2025 – Apr 2030 (Expected)

Bachelor of Applied Science in Engineering: Management Engineering/ Planned Option in AI/ML

Skills

Languages: Python, JavaScript, TypeScript, SQL, C#, Dart, HTML, CSS

Frameworks/Tools: PyTorch, Scikit-learn, Supabase, React, Flask, FastAPI, Node.js, Flutter, Git, Docker

Competencies: AI/ML: MCP, RAG, NLP, AI Automation, Context/Prompt Engineering; Full Stack/Backend Development, Agile Collaboration, Data Analytics

Experience

Chief Technology Officer – PURLUX

June 2025 – Present

Flutter/Dart, Supabase (PostgreSQL), Stripe, Python (FastAPI), Gemini

- Delivered a cross-platform app projected to onboard **1,500+ pilot users** by architecting a **Flutter frontend** integrated with a **Supabase/PostgreSQL backend**.
- Increased booking conversion rate by **25%** by deploying an AI-powered recommendation system with **Gemini APIs** for personalized service suggestions.
- Secured **100K pre-seed funding** after developing a MVP level app at SPURHACKS (*2nd Best AI-based App Winner*) and pitching at multiple accelerators.

Software Engineer – Questify

April 2025 – Present

Python, HTML, CSS, JavaScript, MoviePy, Cerebras API's, SQLAlchemy, Gemini

- Optimized AI video generation quality and processing by **30%** by engineering a pipeline with **MoviePy** and optimizing inference with **Cerebras API's**.
- Reduced feature deployment time by **20%** by conducting code reviews, building modular Python/SQLAlchemy APIs.
- Implemented **multimodel capabilites** by using Gemini API's for video captioning and content generation, enabling multi-user support for concurrent video rendering.

Programming Instructor – Code Ninjas

Jul 2024 – Feb 2025

Scratch, Python, Roblox Studio, JavaScript

- Taught programming to 50+ students aged 7–14, fostering computational thinking through **project-based learning**.
- Improved student learning outcomes by designing a curriculum covering programming fundamentals and game development.

Projects

VibeML (HackTheSix 2025 — Node.js, Python, Scikit-learn, Redis, Celery, TypeScript, HTML)

- Built a **full-stack AutoML tool** that automated dataset validation, model training, hyperparameter tuning, evaluation, and deployment.
- Built a coherent backend system through **Redis** and **Celery** for task scheduling and background job management, ensuring effective AutoML workflows.

AskMyData (Python, Flask, ChromaDB, Ollama, Pandas, NumPy, Plotly, TypeScript, HTML/CSS)

- Developed an AI-powered data query system enabling users to **chat with their datasets** (CSV, JSON, iCal, PDF) using **Retrieval-Augmented Generation (RAG)**.
- Built a **ChromaDB-based vector store** for efficient semantic search and retrieval, integrating **Ollama** for natural language query processing.
- Implemented intelligent visualization detection to automatically generate charts with Plotly and Matplotlib

Individual Financial Tracking System (Excel VBA, Formulas, Data Visualization, PowerBI)

- Implemented dynamic dashboards with formulas (**SUMIF**, **VLOOKUP**, **PivotTables**) for real-time insights on monthly and yearly spending trends.
- Created custom VBA macros to generate summary reports, visualize cash flow, and support decision-making through present value analysis.