

VIJAYSHREE VAIBHAV

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EDUCATION

- Thapar Institute of Engineering and Technology** Patiala, India
Bachelor of Technology - Computer Science and Engineering Aug 2023 - May 2027

EXPERIENCE

- Snap Inc.** Remote
Software Engineering Extern Sept 2024 – Nov 2024
 - Scalable Feature Development:** Developed and deployed scalable backend features for a user-facing product serving over 100,000 users, directly impacting user experience and platform reliability.
 - Data Pipeline Implementation:** Designed and implemented robust data processing pipelines to handle large volumes of user data, reducing system latency by 20% and enhancing data availability for downstream services.
- Cube.** Remote
Business Development & Analytics Intern Apr 2024 – Aug 2024
 - Data-Driven Insights:** Implemented AI-powered analytics solutions, leading to a 25% increase in client engagement and 80% improvement in organic visibility.

TECHNICAL SKILLS

- Programming Languages:** Python, C++, Java, JavaScript, SQL, R, Go, Bash Scripting
- Core CS Concepts:** Data Structures & Algorithms (DSA), OOP, Operating Systems, System Design, Software Testing
- Frontend Development:** React.js, HTML5, CSS3, JavaScript (ES6+), Tailwind CSS, Responsive Design — full MERN stack frontend
- Backend Development:** Node.js, Express.js, REST APIs, Authentication (JWT, OAuth), Middleware, Routing, Error Handling — full MERN stack backend
- Databases:** MySQL, PostgreSQL, MongoDB, SQL Server, Elasticsearch, Data Crawlers, ETL Pipelines
- AI & ML:** Large Language Models (LLM), NLP, Retrieval-Augmented Generation (RAG), Semantic Search, Generative AI, ML System Design
- Deep Learning:** CNNs, RNNs/LSTMs, Transformers, Transfer Learning, Model Evaluation, Loss Functions, Optimizers
- NLP & LLM Tools:** HuggingFace Transformers, BERT, GPT, Prompt Engineering, Fine-tuning, Vector Databases
- Infrastructure & Tools:** Docker, Kubernetes, Linux, CI/CD, Unit Testing, Integration Testing, Postman, Visual Studio Code, NVIDIA CUDA, Lens Studio, Grafana, Prometheus

PROJECTS

- Conversational Browser Control Agent:** End-to-end AI agent that sends Gmail from plain-English chat while a Playwright bot drives a live Chrome session; React + WebSocket stream real-time screenshots, GPT-4 fills subject/body—zero Gmail-API usage for full compliance. **Demo:** video. **Tech:** Python, Playwright, React (Vite), WebSocket, GPT-4, Docker
- JobImport-Hub:** Dockerized ingestion platform that aggregates, de-duplicates, and upserts 100 K+/day XML job feeds into MongoDB with live SSE dashboard; Express API + BullMQ workers on Redis scale horizontally and maintain <1% duplicate rate through idempotent upserts and audit logs. **Tech:** Node.js 18, Next.js, Express, MongoDB, BullMQ, Redis, Docker
- Advanced Trading Simulator with Slippage and Impact Analysis:** Engineered real-time trading simulator with WebSocket integration processing market data at sub-30 ms latency. Implemented distributed architecture demonstrating expertise in scalable system design and performance optimization. **Tech:** Python, WebSockets, Pandas, NumPy, PyQt6
- Power Monitoring Tool:** Created Python-based application performance monitoring tool with real-time data visualization, reducing energy consumption by 15%. Features comprehensive data analysis and reporting capabilities. **Tech:** Python, NumPy, Matplotlib, SQL
- AI-Powered Meeting Minutes Extractor:** Developed Node.js backend service using OpenAI GPT to extract summaries, key decisions, and structured action items from unstructured meeting notes. Supports both text and file uploads and returns clean JSON output with robust error handling. **Tech:** Node.js, Express.js, OpenAI API, Multer, Postman

- **Mini RAG Pipeline Pro — Fast Retrieval-Augmented Generation:** Built and deployed a production-ready RAG pipeline in under an hour. Ingests academic papers, embeds with SentenceTransformers, stores vectors in Pinecone, retrieves top-3 passages, and generates answers via GPT-4, with real-time latency analytics and a Streamlit UI. **Tech: Python, SentenceTransformers, Pinecone, GPT-4, Streamlit**
- **MNIST Digit Recognition: Multi-Algorithm Benchmark Analysis:** Implemented and benchmarked multiple ML algorithms on the MNIST handwritten digit recognition task, analyzing trade-offs between accuracy, training time, and prediction time; visualized confusion matrices, learning curves, and misclassified samples. **Tech: Python, scikit-learn, TensorFlow, pandas, matplotlib**

ACHIEVEMENTS, PROBLEM-SOLVING & LEADERSHIP

- **7-Time National Hackathon Winner** — Including **All India Rank 1 at StartupThon 2025**, Top 5 at National FinTech Hackathon, and recognition across multiple competitive programming and innovation events by solving complex engineering problems under pressure.
- **Advanced Algorithms & Problem-Solving Skills** — Certified in **Advanced Data Structures & Algorithms**, with consistent success in elite competitive programming contests, showcasing strong analytical and computational efficiency.
- **Technical Leadership** — Led development teams in hackathons and projects, demonstrating collaborative skills, delivering scalable solutions under tight deadlines, and mentoring peers in technical domains.
- **Industry Recognition & Performance Excellence** — Ranked in the **Top 0.1% at Snap Inc. externship program** for technical aptitude, high-quality deliverables, and thriving in fast-paced, agile environments.

CERTIFICATIONS & RECOGNITION

- **Generative AI: Working with Large Language Models - LinkedIn Learning:**
- **Advanced Data Structures & Algorithms Mastery - Certificate of Excellence:**
- **Elite Competitive Programming Completion Certification:**
- **7x Ace Coder Award - Ranking #1 on Leaderboard:**
- **Innovation Award - Quantitative Finance Hackathon Winner:**
- **Advanced Software Development Certification:**
- **Google Cloud Professional Certification:**
- **Advanced Programming Excellence - C++ :**