

Advay Sinha

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EDUCATION

Bennett University

B.Tech, Computer Science and Engineering (AI Specialization) — CGPA: 8.85 / 10

Greater Noida, UP, India

Aug 2024 – May 2028

DPS Ranchi

10+2, CBSE Board — Percentage: 93%

Ranchi, Jharkhand, India

2022 – 2024

EXPERIENCE

Alignerr (Freelance)

AI Data & Evaluation Contractor

Remote

Jan 2026 – Present

- Accelerated model alignment for frontier AI systems by performing structured data labelling and adversarial prompt evaluation for clients including **Anthropic**, contributing to measurable improvements across 3+ model safety and response quality benchmarks.
- Applied probabilistic reasoning and statistical judgment to evaluate model output distributions across **10+ evaluation cycles**, scoring responses for factual accuracy, coherence, and instruction-following fidelity to directly inform RLHF pipeline updates.
- Designed structured adversarial prompts grounded in logical and mathematical edge cases to probe model robustness across code generation, reasoning, and multi-step instruction-following tasks.

Zarva

Backend Developer

Greater Noida, UP, India

Nov 2024 – Dec 2025

- Engineered a real-time speech recognition system and 5+ REST APIs for live call connectivity, reducing passenger safety response latency by enabling instant distress detection across 100+ active cab rides.
- Architected an optimal routing algorithm by integrating crime datasets and applying graph-theoretic path optimisation, decreasing risk-exposure scores by **40%** for users in high-incident zones.
- Secured **1st place** at Mobile Next's MOBILON App Showcase among 40+ competing teams demonstrating Zarva's full safety stack to a panel of industry judges.

PROJECTS

Algo Trade Simulator | *FastAPI, React, PostgreSQL, OpenAI API, Yahoo Finance, Docker* | 🐙 GitHub

- Delivered a full-stack trading simulation platform supporting **50+ concurrent sessions**; accelerated backtesting throughput by **3×** via an SMA crossover engine trained on 5 years of historical data using time-series statistical analysis, achieving **80%+** backtest accuracy.
- Reduced portfolio research time by **60%** via a GPT-powered copilot using probabilistic scoring over historical return distributions; designed 10+ JWT-secured Swagger endpoints with candlestick and sparkline dashboards.

FloatChat – Oceanographic RAG Explorer | *Python, Streamlit, ChromaDB, Ollama, Plotly* | 🐙 GitHub

- Reduced oceanographic data query time by **70%** by building a custom RAG pipeline with Parquet caching and ChromaDB cosine-similarity vector indexing over **10,000+ ARGO float records**.
- Improved answer completeness by **45%** via hybrid fallback logic combining DuckDuckGo snippets and local LLMs (Ollama); engineered a spatial/temporal query pipeline with Plotly, Leaflet, and Cesium for geospatial visualisation.

Mock-AI – Interview Platform | *FastAPI, React, MongoDB, Google Gemini, JWT* | 🐙 GitHub

- Deployed a full-stack AI mock-interview platform handling **200+ dynamic test sessions**, powered by Google Gemini for AI-generated question sets and real-time voice-enabled simulation.
- Improved candidate feedback quality by **50%** through structured Gemini-generated performance reports with personalised insights, JWT-secured sessions, and MongoDB-backed dashboards.

SKILLS

Languages: Python, Java, C++, TypeScript, JavaScript, Lua

Mathematics & Statistics: Linear Algebra, Probability Theory, Statistical Inference, Time-Series Analysis, Gradient-Based Optimisation

AI / ML: PyTorch, Scikit-learn, Keras, OpenCV, RAG Pipelines, RLHF Evaluation, OpenAI API, Ollama, LangChain

Backend: FastAPI, Node.js, Express.js, Spring Boot, REST APIs, WebSockets, JWT Auth, Docker, CI/CD

Frontend: React, Next.js, HTML, CSS

Databases: PostgreSQL, MongoDB, MySQL, ChromaDB

Tools: Git, GitHub, Swagger, Pandas, NumPy, Matplotlib, Jupyter