SANIYA INAMDAR

+447823707762 | saniyainamdary2k@gmail.com |
in saniya-inamdar | CodeFor2001 | Portfolio

Education

University Of Southampton, United Kingdom (ECS Scholarship) **Sep 2024 – 2025**
Master of Science, Computer Science

Vishwakarma University, Pune, India **July 2019 – May 2023**
Bachelor of Technology, Computer Science and Engineering *CGPA: 9.3*

Skills

Programming & Frameworks: Java, Python, JavaScript (React.js, Next.js, Node.js, Express), TypeScript, Flutter, Redux, Context API, REST APIs
Backend & DevOps: Spring Boot, AWS (EC2, Lambda), Docker, CI/CD (GitHub Actions)
Databases: SQL, MongoDB, ClickHouse, Pinecone (vector DB)
Web & Front-End: HTML5, CSS3, modern front-end development, responsive UI design
AI & ML: Transformers, TensorFlow, PyTorch, NLP, RAG pipelines, LangChain, LlamaIndex, Agentic AI, Tool Orchestration

Experience

Guardstar (featured) **Dec 2024 – Present**
Ex-Founder | SDE - AI (Part-time) *Southampton, UK*
Node.js | MongoDB | Flutter | React | ChirpStack | Clickhouse | LoRaWAN | LangChain | MCP | Pinecone | Docker | AWS

- Designed and implemented a scalable, fault-tolerant full-stack admin panel (**Node.js, MongoDB, AWS EC2, Docker**) serving 5,000+ concurrent users with p95 latency <120 ms
- Developed a mobile application with internationalisation for **real-time sensor data visualization and analytics**,
- Designed and implemented a guided HACCP Plan Generator powered by **agentic AI workflows** (LangChain + MCP).
- Integrated **RAG pipelines** with Pinecone to allow AI agents to retrieve compliance regulations, reducing manual compliance preparation time by 40%.
- Optimised sensor event-processing pipeline using concurrent queues and caching, reducing throughput latency by 43% (from 70 ms to 40 ms) and rendering performance using **React memoization, code-splitting, and dynamic imports**, reducing page load time by 40%.

Infineon Technologies Pvt. Ltd. **Jul 2022 – Aug 2024**
Business Analyst *Bangalore, India*
SAP BW | Tableau | Tableau Prep | SAP HANA | Hadoop | SAC | ABAP | SDI | SQL | Python | Confluence

- Spearheaded in-house migration to **BW/4HANA**, delivering a fully tailored solution without third-party help, saving significant costs of around €300K/year.
- Programmed **big data manipulation** using **ABAP routines**, accelerating SAP data processing and operational efficiency.
- Streamlined **data workflows** with **Tableau Prep, SQL, and Python**, optimizing pipelines and reporting systems.
- Integrated **Hadoop and SAP HANA**, enhancing **analytics capabilities** and accelerating data-driven decision-making.
- Led cross-functional delivery of SAP Finance module enhancements, ensuring on-time deployment of scalable production solutions.

Kasetsart University **Jan 2021– May 2021**
Machine Learning Research Intern *Thailand (Remote)*
Pytorch | Audio Event Detection (Torchaudio) | Librosa | LSTMs | Python

- Built LSTM + CNN hybrid model in PyTorch to detect leak events in multichannel audio; F1 = 0.88..
- Designed and implemented an **audio preprocessing pipeline** using Librosa and PyTorch

Projects

Matrix Profile enhanced Feature Extraction for Brain EEG Classification (Ongoing)

- Open source contribution to aeon-toolkit to have multivariate **GPU Matrix Profile transformer** and **MatrixProfileIncremental** estimator.(CUDA-accelerated multivariate Matrix Profile on GPU (NVIDIA RTX 3090))
- ML pipeline and implementation of **HC2** and **MultiRocket Hydra** for TSC on EEG data

Persistent Click-Element Tracker with Context Graph

- Developed a **JavaScript plugin** that assigns permanent IDs to clicked elements, ensuring analytics and test scripts remain valid despite DOM/CSS changes.
- Engineered **a hybrid system** (in-browser lightweight neural network + Python backend with **Pinecone + Neo4j**) to re-identify clicked elements in <**50 ms** with **90%** accuracy.
- Built an **interactive DOM graph view** for engineers to inspect clicked elements, visualize live parent–sibling–child relationships, and speed up debugging.
- Automated **webpage snapshot capture** with Puppeteer and used the images to retrain the model, improving match accuracy to **92%**.
- Packaged and deployed the full stack in **Docker** for seamless integration into testing pipelines.

Certification & Recognition

Harvard Business School: Business Analytics **Featured in Daily Echo for AI-powered app development.**: