

SANIYA INAMDAR

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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

TECHNICAL SKILLS

Languages: JavaScript/TypeScript, Dart, Java, Python, R, ABAP

Technologies: NodeJS, Docker, React, Flutter, Tableau, Power BI, Hadoop, SAP BW4HANA

ML, Agentic AI & Tool Orchestration: Transformers, LangChain, LlamaIndex, CrewAI, AutoGen, MCP, RAG pipelines, NLP, TensorFlow, PyTorch

Database: MongoDB, SQL, Pinecone

EXPERIENCE

University of Southampton

Dec 2024 – Present

SDE - AI Intern (Part-time)

Southampton, UK

Node.js | MongoDB | Flutter | React | ChirpStack | LoRaWAN | LangChain | MCP | Pinecone

- Developed a fully-featured, scalable full-stack **admin panel** for managing users and platform content, including features such as waitlist management, live sensor data, sensor calibration offsets and notification preferences.
- Developed a mobile application with internationalisation for **real-time sensor data visualization and analytics**, integrating checklist management, alerting system, and historical log storage.
- Designed and implemented a guided HACCP Plan Generator powered by **agentic AI workflows** (LangChain + MCP), enabling autonomous hazard analysis, CCP identification, critical limit calculation, and monitoring procedure recommendations.
- Integrated **RAG pipelines** with Pinecone to allow AI agents to retrieve compliance regulations, validate generated plans, and produce structured PDF/Word reports—reducing manual compliance preparation 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.
- 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 | TorchAudio | Librosa | LSTMs | Python

- Built and optimized LSTM-based deep learning models achieving **97% accuracy** for leakage detection in water distribution pipelines.
- Designed and implemented an **audio preprocessing pipeline** using Librosa and PyTorch
- Tuned neural network architectures and hyperparameters for improved temporal audio analysis.

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
- 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.

CERTIFICATIONS

Harvard Business School: Business Analytics [↗](#)