# **EESHA SONDHI**

#### AI SOLUTIONS ENGINEER

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#### **EDUCATION**

#### Imperial College London, Dyson School of Design Engineering

Sept 2021 - July 2025

Design Engineering (MEng)

• Expected 2/1 (Graduation October 2025)

### **Lady Eleanor Holles School**

Sept 2015 - Jul 2021

Secondary School

- A\*A\*A\* at A-Level in Maths, Physics, Art
- 9 A\* and 1 A at GCSE Level

#### **WORK EXPERIENCE**

## **Butterfly Air, AI Solutions Engineer and Product Manager**

Mar 2024 - Jun 2025

- Independently developed a custom Al-driven time series forecasting model using <u>NeuralProphet</u>, fusing autoregressive methods with neural networks to predict indoor air quality metrics with state-of-the-art ~94% accuracy over a 12-hour forecast window.
- Collaborated with cross-functional teams, including software developers to optimise and implement Al
  functionalities, and meet client needs.
- Designed and implemented a language model (LLM) ChatGPT, to analyse forecast data and provide actionable insights, aligning AI development with user experience goals.
- Built an Al Agent using a Retrieval Augmented Generation model implemented through <u>LangChain</u> with no hallucinations.
- Evaluation of the features using the <u>RAGAS</u> framework and k-fold cross-validation for the Al Agent and Forecasting model respectively.

## Mastercard, Product Management Internship

Jun 2023 - Sept 2023

- Collaborated with the Partnerships Product Management team to analyse and optimise the integration of Mastercard's payment gateway with key fintech partners.
- Gained in-depth knowledge of payment gateway operations, contributing to the enhancement of fintech solutions across global partnerships.
- Participated in a Global Innovation project, exploring cutting-edge payment technologies and their applications in the fintech landscape.

## **PROJECTS**

## Al-Powered Pharmaceutical Data Pipeline (n8n, Supabase, Low-Code)

Jun 2025

- Built a fully automated pharma intelligence pipeline using n8n for web scraping, LLM integration, and database updates
- Used OpenAl to extract structured insights (drugs, NHS connections, HQ location, etc.) from unstructured web content
- Stored and deduplicated results in a Supabase PostgreSQL database
- Enabled data exploration via a React-based dashboard built with v0.dev, powered by real-time Supabase queries
- Combined low-code automation, LLM-powered NLP, and SQL to create a scalable and extensible AI data product

Aug 2024 - Jun 2025

## Masters Project: LLM integration, AI Agents, RAG Models and Finetuning ML models

- "Transforming Indoor Air Quality Management at Butterfly Air through AI: Neural Prophet Forecasting and RAG-based AI Agent Integration"
- Creating data pipelines to implement a RAG model to optimise an Al Agent
- Developed a functional conversational Al Agent for indoor air quality using
- Used Autoregressive Neural Networks and fine-tuning methods to create a predictive model for forecasting IAQ metrics.

#### **TECHNICAL SKILLS AND INTRESTS**

Programming Languages: Python, HTML, CSS, JavaScript, MATLAB

Libraries & Frameworks: PyTorch, TensorFlow, scikit-learn, pandas, NumPy, matplotlib

Al & Automation Tools: n8n, v0, Claude, CodeEx

Version Control & Dev Tools: GitHub

**Data & Modelling Skills:** Time-series forecasting, Machine Learning, Deep Learning techniques **Design & Prototyping Tools:** Figma, Adobe Illustrator, Photoshop, InDesign, Procreate, Canva,

Fusion360

Technical Interests: Al automation, low-code tools, data-driven decision-making, predictive modelling,

explainable Al

## **PERSONAL SKILLS AND INTRESTS**

#### **Achievements:**

- 1st Dan Black Belt in MMA
- European Karate Champion, 2019
- Imperial College Bhangra Dance Captain & Choreographer, 2023

Interests: Travel, Swimming, Cooking, Bhangra (Dance), Dhol (Indian Drum), MMA