

Bhavya Dhingra

📍 Sydney, Australia ✉ bhavdhi@gmail.com ☎ 0434381980 in bhavya0020 🌐 Bhavya0020

Summary

Machine Learning / AI Engineer with experience building and productionising ML systems, agentic AI applications, and scalable data pipelines across AWS and GCP. Experienced across dynamic pricing, forecasting, Australian property valuation models, recommendation systems, and LLM-powered applications. Strong end-to-end engineering background spanning model development, production deployment, cloud infrastructure, APIs, and data pipelines. Kaggle 3x Expert (**ranked 212th globally and 5th in Australia**)

Skills

Languages: Python, SQL, JavaScript, TypeScript

ML / AI: PyTorch, TensorFlow, LangChain, RAG, Google ADK

Backend / Data: FastAPI, PostgreSQL, MongoDB, GraphQL, Airflow

Cloud / MLOps: GCP, AWS, Docker, Kubernetes, Terraform, Firebase

Frontend: React, Next.js, React Native, Tailwind CSS

Experience

Machine Learning Engineer

Sydney, Australia

TEG - Ticketek

March 2026 – Present

- Developed and productionised **pricing recommendation and forecasting pipelines**, improving forecast accuracy and increasing within-10% prediction performance by **15.9 percentage points**.
- Designed and productionised TEG's conversational AI assistant **Stella** using **Google ADK**, orchestrating **3 specialised agents, 6 tools, and 5 external services** for event discovery, real-time pricing, ticket availability, and customer support; supporting **50K+ monthly sessions** with up to **68% user engagement** and **6.9% purchase conversion**.
- Built and deployed scalable analytics workflows on Snowflake and Google Cloud Platform, enabling business stakeholders to access pricing recommendations and commercial insights for every sporting event.

Technical Partner

Sydney, Australia

Forethought Factory

June 2025 – March 2026

- Leading development of the MVP for a voice-controlled peer-to-peer parking application **ParkingOath**, building a cross-platform mobile app using **React Native (Expo)** with a unified codebase.
- Architected backend infrastructure on **Google Cloud Platform**, designing **Firebase database schemas, authentication flows, and real-time data pipelines** to support scalable user interactions and parking marketplace transactions.
- Designed and implemented secure voice agent helping users book parking spots based on their requirements.

Machine Learning Engineer

Sydney, Australia

Microburbs

Dec 2025 – March 2026

- Improved the Automated Valuation Model (AVM) **performance by 12.47%** through a weighted ensemble with residual correction, increasing R^2 and within-10% accuracy and **outperforming Domain's AVM by 11.21%**.
- Designed a confidence estimation model to evaluate AVM reliability, using **Quantile bootstrap regression**.
- Engineered spatial, temporal, and market-driven statistical features (price momentum, regional price dispersion, historical volatility, and locality-level aggregates) to enhance predictive performance and stability across different property segments.

Analyst Programmer

Sydney, Australia

SeeMePlease

Oct 2024 – April 2025

- Developed an **accessibility-friendly client page** to see user testing video reviews for their product and

connected it to Contentful Headless CMS for data flow.

- Built an automated analytics dashboard in Looker Studio for monitoring user-testing KPIs, with Google Apps Script-based data pipelines and workflow automation.

Data Scientist (Part-time)

Sydney, Australia

Evidentli

Dec 2024 – Feb 2025

- Developed an **LLM-based eCQM generation pipeline** that automated the creation of electronic clinical quality measures, including retrieval and integration of clinical value sets.
- Built an **unstructured-to-structured data pipeline** that converted free-text clinical requirements into standardized JSON configurations using LLMs, with PostgreSQL for data storage and retrieval.

Product Analyst

Gurugram, India

Zomato

Jan 2023 – June 2023

- Scaled Zomato Legends **GMV per day 2.3 times** by developing an analytics-based demand forecasting system to predict daily demand with an average **yield loss of 0.8%**.
- Developed **recommendation system** algorithm for top-charts category, suggesting the user a personalized food item for each category.

AI Researcher

Delhi, India

NSUT

Aug 2022 – Jan 2023

- Published **12 research papers** in peer-reviewed journals and conferences, applying **machine learning, deep learning, and data science** to problems in healthcare, cybersecurity, and renewable energy systems.
- Developed and evaluated **machine learning and deep learning models**, including **LightGBM, CatBoost, Extra Trees, TabNet, and TabTransformer**, incorporating ensemble learning, hyperparameter optimization, and feature extraction techniques for predictive modelling.

Education

The University of Sydney

Master of Computer Science - Specialization in Data Science and AI

Netaji Subhas University of Technology (NSUT)

Bachelor of Technology (Electrical Engineering)

Projects

AI Video Generation Pipeline

[Demo](#) 

- Built an end-to-end AI video generation LLM pipeline that uses LLM as an orchestrator to generate scripts and then transform them into production-ready videos by using subagents, stable diffusion, image/video synthesis, and final video assembly.
- Tools Used: Python, Ollama / vllm, KokoroTTS, LangChain, Wan2.2, FFmpeg,

AUSDOR: AI Meal Planning & Shopping Agent

- Built an agentic AI system that generates personalised meal plans and autonomously converts them into structured shopping lists using LLM-driven planning, multi-step reasoning, and tool-integrated workflows.
- Tools Used: Python, LangChain, Gemini APIs, AWS, Docker, PostgreSQL

Selected Publications

- **PATENT: Dhingra, Bhavya.** “An Efficiency Prediction System for Solar-PV Module Using Environmental Stacked Optimized Ensemble Inference Technique.” India Patent 202311036858, **Granted 2024.**
- **Dhingra, B., et al.** “RLET: A Light Weight Model for Ubiquitous Multi-Class Intrusion Detection in Sustainable and Secured Smart Environment.” *International Journal of Information Security*, Springer. 
- **Dhingra, B., et al.** “A Novel Hypertuned Prophet-Based Power Saving Approach for IoT-Enabled Smart Homes.” *Transactions on Emerging Telecommunications Technologies*, e4597 (2022). 