

Bobby Lo

Email: lowaitungbobby@gmail.com

Location: London, United Kingdom

LinkedIn: bobby-waitung-lo | GitHub: bobby-waitung-lo | Kaggle: lwtbkaggle

Professional Profile

Data Scientist with healthcare background and 6+ years of cross-functional team leadership experience. Proven track record delivering measurable business impact: 300% sales increase, 70% cost reduction, and accurate Bank of England rate forecasting, and predictive modelling for flight delays. Expertise in machine learning, data analytics, and computer vision and model explainability, with unique healthcare domain knowledge. Experienced leading teams of 5-20 people whilst implementing data-driven solutions for operational efficiency. Proficient in end-to-end ML pipelines, data visualization, and cloud technologies, with a focus on actionable insights for business optimization.

Key Achievements

- **Developed a 93% AUC-ROC flight delay prediction model** using XGBoost and an MLOps pipeline, enabling data-driven scheduling and customer communication strategies for aviation
- **Accurately forecasted Bank of England base rate cut** of 0.25% in May 2025 MPC meeting using polynomial regression model with economic data analysis
- **Achieved 300% single-day sales increase** through real-time linear regression forecasting and data-driven team collaboration strategies
- **Reduced beverage costs by 70%** (to below 30%) by developing stock inventory system analysing consumption patterns across 4 stores
- **Eliminated 99%+ daily pastry waste** through data-driven bakery waste reduction project using time series analysis and linear regression
- **Built neural network model with 84% accuracy** for hotel booking cancellation predictions using TensorFlow and Keras
- **Graduated with Distinction (3.63/4.3 GPA)** in MSc Health Informatics and received Dean's Honours List recognition

Technical Projects

Flight Delay Prediction with MLOps Project (July 2025)

- **Developed 93% AUC-ROC flight delay prediction model**, leveraging Pandas, NumPy, scikit-learn, and XGBoost
- **Implemented an end-to-end ML pipeline** with target encoding, feature scaling and tuning model hyperparameters via RandomizedSearchCV
- **Utilized SHAP for model explainability**, identifying primary delay driver and highlighting delay-prone airports for operational improvements
- **Created an app for real-time delay predictions**, demonstrating deployment readiness in optimizing flight schedules and customer experience

Company Financial Performance Data Analysis Project (July 2025)

- **Created comprehensive Power BI dashboard** analysing regional sales, customer segmentation, and profit trends
- **Delivered actionable business insights** through advanced data visualisation and DAX measures
- **Optimised sales strategy** through identification of key performance drivers and seasonal peaks

Bank of England Base Rate Forecast Project (April 2025 – May 2025)

- **Developed polynomial regression model** generating daily base rate predictions using Pandas, NumPy, scikit-learn, and Matplotlib
- **Successfully predicted 0.25% rate cut** before official MPC announcement, demonstrating real-world forecasting accuracy
- **Transformed complex economic data** into accessible predictive insights for public consumption
- **Achieved high model performance** through feature engineering and statistical validation techniques

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Kaggle Machine Learning Projects (September 2024)

- **Built hotel booking cancellation prediction model** achieving 84% accuracy using TensorFlow and Keras
- **Implemented hyperparameter tuning** optimising neural network performance through systematic experimentation
- **Designed complex SQL queries** for GitHub programming language analysis using Google BigQuery platform
- **Demonstrated end-to-end ML pipeline** from data preprocessing to model deployment and evaluation

Career History

Deputy Manager | Aldi Stores Ltd, London (October 2023 - August 2024)

- **Led data-driven Bakery Waste Reduction project** using linear regression and time series analysis
- **Achieved less than 1% daily pastry waste** through predictive modelling and operational optimisation
- **Managed cross-functional team** implementing data analytics solutions in retail operations
- **Developed automated forecasting system** improving inventory management and reducing operational costs

Drinks Team Leader | Honi Poke Ltd, London (March 2023 - September 2023)

- **Built comprehensive stock inventory system** analysing data from 4 stores providing real-time business insights
- **Reduced beverage costs by 70%** (from 30%+ to below 30%) through consumption pattern analysis
- **Created interactive dashboards** visualising stock levels, KPIs, and operational metrics

Store Assistant | KDL Beverages Ltd, London (December 2022 - March 2023)

- **Implemented daily sales forecasting** using linear regression with real-time data integration
- **Achieved record 300% sales increase** in single day through data-driven team collaboration
- **Developed predictive models** optimising sales performance and inventory management

Diagnostic Radiographer | Hospital Authority, Hong Kong (August 2018 - September 2022)

Technical Skills

Programming & Data Analysis

- **Python:** Pandas, NumPy, scikit-learn, Matplotlib, Seaborn, spaCy
- **SQL:** Complex query design, database optimisation, Google BigQuery

Machine Learning & AI

- **Frameworks:** TensorFlow, Keras, XGBoost
- **Techniques:** Regression, classification, neural networks, computer vision
- **Model Evaluation:** Hyperparameter tuning, cross-validation, performance metrics
- **MLOps:** End-to-end ML pipelines, model deployment

Data Visualisation & BI

- **Power BI:** Dashboard creation, data modelling, business intelligence
- **Tableau:** Advanced visualisation, interactive dashboards
- **Excel/Google Sheets:** Advanced formulas, pivot tables, statistical analysis

Cloud & DevOps

- **AWS:** Machine Learning services, Cloud computing fundamentals
- **Microsoft Azure:** Machine Learning model training and management
- **Git/GitHub:** Version control, collaborative development
- **Google Cloud:** BigQuery, data warehousing solutions

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Education

MSc Health Informatics | The Hong Kong Polytechnic University (2020-2022)

- **Grade:** Distinction (3.63/4.3 GPA)
- **Dean's Honours List:** Outstanding academic performance and community engagement
- **Specialisation:** Healthcare data analytics, medical informatics, and clinical support systems

Data Science Skills Bootcamp | HyperionDev (March-June 2024)

BSc (Hons) Radiography | The Hong Kong Polytechnic University (2014-2018)

- **Healthcare foundation:** Medical imaging, patient care, and clinical procedures
- **Technical expertise:** Image analysis, quality assurance, and diagnostic techniques

Professional Certifications

- **DataCamp:** Data Analyst in Power BI, Data Analyst in Tableau
- **Microsoft:** Train and manage a machine learning model with Azure Machine Learning
- **Google:** Generative AI Fundamentals
- **AWS:** Machine Learning Foundations, Introduction to Cloud 101