

# MUHAMMAD SALMAN KHALID

+44 (0) 7879973806 | [muhammad.khalid.25@ucl.ac.uk](mailto:muhammad.khalid.25@ucl.ac.uk) | <https://salmankhalid-hub.github.io/SalmanKhalid/> | [linkedin.com/in/salman-khalid-km01](https://linkedin.com/in/salman-khalid-km01)

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## EDUCATION

### **University College London**

London, UK

*MSc in Business Analytics*

Sep 2025 – Aug 2026

- Core modules: Predictive analytics, Programming for business analytics, Data engineering, Marketing analytics, Natural language processing, Business strategy and analytics, Statistical foundations of business analytics, Operations analytics, Business analytics consulting project (data science internship with an external company).

### **Swansea University**

Swansea, UK

*BSc in Economics*

Sep 2021– Sep 2024

- Grade: Upper 2:1
- Core modules: Time series econometrics, Microeconomics and panel data models, Advanced macroeconomics, Advanced microeconomics.
- Vice President of the Economics society

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## ACADEMIC PROJECTS

### **Marketing analytics & customer targeting (unsupervised and supervised machine learning - R) – UCL**

- Analysed 5000 Amazon customer records to design a targeted subscription campaign, engineering RFM features and building k-means segments plus supervised models (decision tree, 2000-tree random forest) in R.
- Computed break-even response rates and marketing ROI; tree-based targeting improved ROI from -0.22 (blanket mail-out) to +0.68 (decision tree) and +0.49 (random forest), while reducing offers sent to low-propensity customers.
- Modelled 2080 Amazon TV product-week observations with descriptive analytics and fixed-effects regression to quantify the impact of price, discounts, ratings and marketing spend, and designed A/B tests and regression-discontinuity strategies to identify causal effects.

### **Sustainability & cost analytics (Statistics, R, Excel) - UCL**

- Evaluated recycling performance and sustainability initiatives for 200 European firms using R and Excel (EDA, z-score classification, contingency tables, proportion and mean tests).
- Built and diagnosed a log–log OPEX regression (adj.  $R^2 \approx 0.88$ ), showing that sustainability investment reduces OPEX (~0.47% per 1% increase) while initiative participation has no significant standalone cost impact.

### **Health analytics & diabetes prediction (machine learning, EDA - Python) - UCL**

- Built an end-to-end ML pipeline in Python on a large public health dataset (BRFSS 2015) to predict diabetes risk from demographic, behavioural, and clinical features.
- Performed EDA and feature diagnostics (distributions, correlations, heatmaps) to identify key predictors including BMI, age, physical activity, and health behaviours.
- Implemented feature engineering and preprocessing (categorical encoding, scaling, normalisation) using Pandas, scikitlearn.
- Trained and compared supervised models (logistic regression, decision tree, random forest) with train–test evaluation.
- Evaluated performance using accuracy, precision, recall, F1-score, ROC curves, and confusion matrices, analysing error tradeoffs and model robustness.
- Translated model outputs into actionable health insights, delivered through a clean and well documented Jupyter Notebook.

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## WORK EXPERIENCE

### **SK Organisation (SKO) - Founder & MD**

Sep 2024 – Aug 2025

- Founded and led a direct marketing firm delivering data-informed outreach campaigns for major UK charities and brands.
- Managed a team of 8 reps and introduced performance metrics and training that boosted conversions by 40%.
- Designed and optimised data driven campaigns, collaborating with clients on evidence based messaging and targeting.
- Won a Young Entrepreneur Award for leadership and innovation.

### **IEUK 2023, Financial Services & Consulting Intern – Remote**

Jul 2023 – Aug 2023

- Gained exposure to consulting and financial services through sessions with leading firms - Vodafone, EY, Bloomberg, PwC.
- Completed a PwC work sample, applying analytical and problem-solving skills to assess a fictional company's financial records and internal processes.
- Developed understanding of auditing principles: materiality, decision-making under uncertainty and maintaining financial integrity.

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## SKILLS AND INTERESTS

- Python (Matplotlib, NumPy, Pandas), ETL pipelines, Apache Spark, Scikit-learn, R, SQL, Tableau, GitHub, Docker and Linux shell scripting, Excel, supervised and unsupervised machine learning, DataOps.
- English (Native), Urdu (Native), Hindi (Native), Arabic (Intermediate), Spanish (Beginner).
- Cricket: Ex County Cricketer for Berkshire under-15s till Men's 1<sup>st</sup> team for over 5 years. Captain and Founder of Reading Tigers Cricket Club. A Premier Division Cricket Player and Senior Coach.