# Nameera Nilofer Khan

## Data Scientist

Sharjah, United Arab Emirates
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LinkedIn | Github | Portfolio

Nationality: Indian | Visa: Residence

*Data scientist specialising in applying NLP and machine learning to advance research. Combines technical expertise in algorithm development with a proven ability to collaborate with researchers and non-technical stakeholders, translate complex questions into technical solutions, and communicate findings effectively*

CORE COMPETENCIES

**Programming:** Python (Pandas, NumPy, Scikit-learn, PyTorch), SQL, AWS Machine Learning, ETL Pipeline
**AI/ ML Research:** Natural Language Processing (NLP), Large Language Models (LLMs), Statistical Analysis, Causal Inference, Experimental Design, Hugging Face Transformers, Generative AI
**Tools & Platforms:** Docker, Git, Streamlit, Plotly, API Integration

## RESEARCH EXPERIENCE & PROJECTS

**Hate Speech Detection using Large Language Models | *Master's Thesis***

- Investigated the generalisation challenges of hate speech classification across diverse online platforms (Twitter, Reddit, Gab) by fine-tuning a RoBERTa model and deployed a demo app via Streamlit Cloud.
- Engineered a hybrid neural architecture (BiLSTM + CNN) on top of RoBERTa to capture both long-range contextual dependencies and local semantic features of hateful language.
- Analysed model performance disparities to identify platform-specific linguistic patterns and biases, contributing to the understanding of multi-platform moderation.

**Modeling Human Preferences & Compatibility | *Pure Intentions Matchmakers***

- Conducted a computational analysis of free-text user responses to model latent personality and preference traits using SentenceTransformer embeddings and PyTorch.
- Framed the recommendation engine as a social science study on the predictors of human connection and compatibility.
- Translated complex model outputs into actionable insights for non-technical stakeholders, demonstrating strong interdisciplinary communication skills.

## PROFESSIONAL EXPERIENCE

**Pure Intentions Matchmakers** London, United Kingdom
*Data Scientist* **(Remote)**
Oct 2024 - Present

- Led product development by translating user preferences into model features to guide development roadmap.
- Deployed an end-to-end recommendation model with proprietary algorithms to support stakeholders' decision making using CI/CD methods.
- Performed statistical analysis of user profiles to uncover behavioural trends in responses for value-based questions.
- Automated reporting and insight generation by integrating generative AI, reducing manual effort by 85% for stakeholders and enabling self-service analytics through interactive dashboards on Streamlit Cloud.

**Clarity Housing Limited,** London, United Kingdom
*Procurement and Research Officer*
March 2024 - May 2025

- Leveraged market trends to identify high-value using Google Analytics and advertising partnerships with national business, driving business revenue growth with £20.4K per annum.
- Liaised with internal and external business users to gather and document detailed requirements for property procurement.
- Owned full analytics lifecycle for procurement by automating manual reporting and identified high-value partnership opportunities through market trend analysis, improving operational efficiency by 60%.

**Queen Mary University of London,** London, United Kingdom
*Module Demonstrator & Project Coordinator*
February 2023 - May 2025

- Developed product development case studies to support lectures.
- Coordinated cross-functional student teams and led workshops promoting digital and tech skills.
- Delivered sessions on computational thinking and women in tech to 70+ GCSE students.

## EDUCATION

**Queen Mary University of London,** London, United Kingdom
*MSc Data Science and Artificial Intelligence*
September 2022 - October 2023

**Anna University,** Chennai, India
*B.E Aeronautical Engineering*
August 2016 - Oct 2020