KARAN PANWAR

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Professional Summary

A highly motivated and detail-oriented **Data Scientist** with practical experience in designing, developing, and deploying **scalable AI-driven solutions** across diverse domains. Possesses strong proficiency in **full-stack web development**, predictive data modeling, and crafting user-focused applications through human-centered design principles. Currently advancing academic and technical expertise through a **Master of Science in Computer Science** at Anglia Ruskin University, with a focus on machine learning, data analytics, and intelligent systems.

EDUCATION

MSc Computer Science

Sep 2024 - Present

Anglia Ruskin University Cambridge, UK Cybersecurity Modules: ML in Finance, Advanced Web Solutions, Semantic Data Technologies,

BSc Computer Applications

May 2021 - May 2024

St. Xavier's College Ahmedabad, India Statistical Analysis

Core: Advanced Programming, Data Structures, Database Systems, Web Technologies,

TECHNICAL EXPERTISE

Programming: Python, SQL, Java, JavaScript, PHP

ML & AI: TensorFlow, Keras, Scikit-learn, OpenCV, LSTM, CNN

Data Science: Pandas, NumPy, Power BI, Matplotlib, Statistical Modeling **Web Development:** React.js, Django, Flask, HTML5/CSS3, REST APIs

Tools: Jupyter, Git, MySQL, WebSockets, Real-time Systems

PROJECTS

Cambridge Culture Website (2025)

Full-stack Development + University Assignment

- $\ \ Developed \ comprehensive \ website \ showcasing \ Cambridge \ culture, \ collaborating \ effectively \ within \ a \ team \ of \ 4$
- Utilized modern web technologies to create an engaging and informative platform, delivering project requirements on time

Emotion-Based Music Recommender (2025)

Computer Vision + Deep Learning + Spotify API

- CNN-based facial emotion detection achieving 85% accuracy
- Integrated Spotify API for dynamic playlist generation, handling concurrent users

Stock Market Prediction Engine (2024)

 $LSTM + Time\ Series + Financial\ Modeling$

- Interactive Power BI dashboards for real-time market visualization and risk assessment
- Advanced feature engineering with technical indicators and sentiment analysis

${\bf Project\ Management\ Platform\ }(2024)$

React + Django + MySQL + Real-time

- $\,-\,$ Full-stack application increasing team productivity
- Role-based authentication, real-time notifications, optimized queries reducing load times

Eve-Tracking Cursor Control (2024)

 $Computer\ Vision\ +\ Accessibility\ +\ HCI$

- Gaze-based cursor control with advanced eye tracking achieving 95% accuracy
- Custom calibration protocols for users with limited mobility

Professional Experience

Research Assistant - Advanced ML

Jan 2025 - may 2025

Cambridge, UK

Analia Ruskin University

- Leading research on Quantum Neural Networks vs CNNs
- Collaborating on financial ML applications and semantic data processing algorithms

CERTIFICATIONS & INNOVATIONS

 $\begin{array}{l} \textbf{Certifications:} \ \ \text{Python for Data Science (IBM)} \bullet \ \text{Data Analytics \& Visualization (Accenture)} \bullet \ \text{Software Engineering Simulation (JPMorgan)} \bullet \ \text{Cybersecurity Workshop} \\ \end{array}$

Additional Projects: Sign Language Translator (AI + Accessibility) • Real-time Chat (WebSocket + Node.js) • Spam Detector (NLP + ML) • Weather API (Django) • AI Cartoonizer (OpenCV) • Personalized Health and Wellbeing Navigation Agent(NLP,ML,REST APIs, Streamlit) • AI interview(Speech Recognition, Machine Learning, Flask)