# KARAN PANWAR

• Cambridge, UK

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GitHub.

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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 Cybersecurity, Research Methods Cambridge, UK Modules: ML in Finance, Advanced Web Solutions, Semantic Data Technologies,

**BSc Computer Applications** 

May 2021 - May 2024

St. Xavier's College Statistical Analysis

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

## **CALEXPERTISE**

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



#### 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

- $\rightarrow$  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

#### 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

## Eye-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 - Present Cambridge, UK

Anglia Ruskin University

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

# **CERTIFICATIONS & INNOVATIONS**

Certifications: Python for Data Science (IBM) • Data Analytics & Visualization (Accenture) • Software Engineering Simulation (JPMorgan) • Advanced ML (Coursera) • Cybersecurity Workshop

Additional Projects: Sign Language Translator (AI + Accessibility)  $\diamond$  Real-time Chat (WebSocket + Node.js)  $\diamond$  Spam Detector  $(NLP + ML) \diamond Weather API (Django) \diamond AI Cartoonizer (OpenCV)$