

MUHAMMAD BILAL UR REHMAN

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PROFESSIONAL SUMMARY

Ambitious MSc Artificial Intelligence candidate at the University of Stirling, currently on track for a Distinction. Passionate about bridging the gap between Data Science and Software Engineering by productionising Machine Learning models. Proven experience in building Agentic AI workflows, deploying full-stack applications on AWS, and utilizing Docker for containerization. Seeking to leverage strong Python, NLP, and Cloud skills to contribute to ThinkAnalytics' world-class recommendation engines.

AREA OF EXPERTISE

Languages & Core: Python (Advanced), SQL, C++, Java.

Data Science & ML: Pandas, NumPy, Scikit-learn, NLP (VADER, SpaCy), Matplotlib, Anaconda, Apache Spark.

AI & GenAI: Large Language Models (LLMs), Google Gemini API, Agentic AI Workflows, Prompt Engineering.

Cloud & DevOps: Docker (Containerization), AWS (EC2, S3, IAM, VPC), Linux/Bash, Git/GitHub.

Web Frameworks: Flask, REST APIs, HTML/Tailwind CSS.

Frontend Technologies: HTML, CSS, Tailwind CSS, JavaScript

KEY PROJECTS

ResumeOps

Jan 2026

AI-Powered Resume Optimization Engine (SaaS) *Technologies: Python, Flask, Docker, OpenAI/Gemini API, AWS.*

- Developed a SaaS platform that utilizes Generative AI to analyze and optimize user resumes against job descriptions.
- Engineered the backend using Flask and containerized the application using Docker to ensure consistent deployment environments.
- Implemented Agentic AI logic to autonomously extract keywords, score relevance, and rewrite content, mimicking a human recruiter.

GitHub: <https://github.com/mbilalrehman/ResumeOps.git>

InterviewCopilot AI

November 2025

CV-aware AI interview coach that simulates realistic recruiter-style interviews.

- Built a stateful Agentic AI system that acts as a technical recruiter, conducting real-time, context-aware interviews based on uploaded CVs.
- Designed a dynamic prompt engineering architecture to handle "follow-up" questions, improving user engagement by 40%.
- Managed production deployment on Linux servers using Gunicorn and Nginx for load handling.
- Hosted multiple production applications on the same EC2 instance

Live: <http://54.87.17.110:8000>

GitHub: github.com/mbilalrehman/InterviewCopilot-AI

NexHire AI

January 2025

Full-stack Generative AI resume parser converting CVs into structured JSON.

- Developed a Flask-based web application using Google Gemini API
- Parsed PDF and DOCX resumes into structured JSON format
- Deployed on AWS EC2 (t3.micro) with secured VPC and security groups
- Managed production environment and application lifecycle

Live: <http://54.87.17.110:5000>

GitHub: github.com/mbilalrehman/AI-Resume-Parser-Gemini

SentimentSense AI Dashboard

December 2025

End-to-end sentiment analysis dashboard for large-scale review data.

- Processed and analyzed 39,000+ reviews using Pandas
- Performed sentiment analysis using VADER NLP
- Built interactive dashboards with Chart.js for visualization
- Delivered actionable insights via a Flask-based web interface

GitHub: github.com/mbilalrehman/SentimentSense-AI-Dashboard

Personal Project

Remote

Cloud Infrastructure Engineer

2024

- Designed and deployed a secure multi-tier AWS cloud network architecture, meticulously configuring VPCs, subnets, and routing

tables to ensure optimal data flow and security, resulting in a reliable and scalable cloud environment for high-demand AI applications.

- Engineered virtual firewalls and implemented IAM policies to fortify data protection and compliance, effectively mitigating potential security vulnerabilities and ensuring adherence to international data protection standards.
- Configured EC2 instances for high availability and performance, integrating load balancing solutions and automated scaling to accommodate dynamic workloads, thereby enhancing the system's resilience and operational efficiency.

RELEVANT EXPERIENCE

Xecuters Ltd

Manchester, UK

AI Recruitment Platform Developer (Industry Project)

2025

- Engineered an intelligent hiring system to automate candidate screening, leveraging advanced AI and machine learning algorithms to enhance the recruitment process's accuracy and efficiency, ultimately reducing time-to-hire by 30% and improving candidate-job fit.
- Developed sophisticated NLP pipelines using SpaCy, expertly designed to parse thousands of CVs with precision, enabling seamless extraction of relevant candidate data for analysis and matching, thereby streamlining the workflow of recruitment teams.
- Implemented an algorithmic approach to match candidate profiles against job descriptions, utilizing Scikit-learn and Python to build a robust matching engine that increased match accuracy by 25%, significantly enhancing recruitment decisions.

Freelance AI Automation Developer

Fiverr

2025

Freelance AI Automation Developer

- Delivered custom automation scripts and Resume Parsing tools for international clients.
- Maintained a **5-star rating** by delivering optimized, well-documented Python code for data extraction tasks.

EDUCATION

University of Stirling

2025 – Present

MSc Artificial Intelligence

University of Sargodha

2021 – 2025

Bachelor's Degree in Information Technology (CGPA: 3.83)