

MUHAMMAD HANZALA WAHID

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SUMMARY

Python Developer and AI undergraduate with extensive experience in backend development, automation, QA, and machine learning. Proficient in Django, FastAPI, REST APIs, Celery, Redis, Selenium, and NLP pipelines. Skilled at designing scalable systems, leading small teams, and integrating AI-driven solutions. Currently developing multi-agent AI systems and NLP tools as a freelance backend developer. Strong analytical skills and experience working remotely across multiple niches.

EDUCATION

Bachelor of Science in Artificial Intelligence, Dawood University of Engineering and Technology Completed June 2026

SKILLS

- **Programming:** Python (Advanced), R (Basic), JavaScript (Basic), C
- **Backend & APIs:** Django, FastAPI, RESTful APIs, Microservices, session management
- **Databases & Caching:** SQLite, MongoDB, Redis
- **Automation & QA:** Selenium (Python), manual testing, API automation, regression testing
- **Machine Learning:** Supervised learning, ensemble methods, model evaluation (Scikit-learn)
- **NLP:** Text preprocessing, feature extraction (TF-IDF, Word2Vec), custom NLP pipelines, chatbot knowledge base
- **Tools:** Git, Postman, API Fox, JIRA, VS Code, Jupyter, Matplotlib, Seaborn, Celery

EXPERIENCE

Python Backend Developer (Freelance) 2023 – Present

- Developing a **multi-agent AI medical billing system** for healthcare insurance clients, building scalable backend workflows and APIs.
- Designed login/signup flows, session management, and backend pipelines for handling missing or incomplete data.
- Integrated Celery + Redis for asynchronous task processing and multi-agent coordination.
- Automated claim validation, error detection, and portal interactions to optimize efficiency and reduce manual work.

QA Analyst (Python Automation Focus) Oct 2025 – Dec 2025
TechForge, Karachi

- Developed Python automation scripts to validate workflows and APIs.
- Performed API, regression, and functional testing for international clients (US, Dubai, UAE), ensuring bug-free releases.
- Collaborated with developers to fix critical bugs and optimize application performance.

QA Automation Engineering Intern Jun 2025 – Sep 2025
Coventech, Karachi

- Conducted comprehensive **manual testing**, including functional, regression, and UI validation.
- Designed and executed test cases, reported defects, and validated fixes in coordination with developers.
- Developed Python automation scripts and tested APIs using API Fox for improved QA efficiency.
- Contributed to **DeftGPT**, an AI-based product for a Chinese client, focusing on quality assurance and automation.

- Lead multiple Python and backend development projects, managing a team of developers and coordinating with sales and marketing teams.
- Plan and manage project timelines, task assignments, and deliverables, ensuring projects meet client expectations.
- Oversee technical execution, quality assurance, and workflow optimization across all active projects.

PROJECTS

- **Medical Billing Multi-Agent AI System (Freelance – Ongoing)**
Multi-agent backend system for healthcare billing automation. Designed login/signup flows, handled missing data, and integrated Celery + Redis for asynchronous task processing. Backend pipelines manage claims validation, error detection, and portal interactions efficiently. Focused on Python backend logic, task queue optimization, and modular architecture for scalability.
- **Microservices GitHub Analyzer**
AI-powered microservices platform using Django + FastAPI. Integrated LLaMA and Grok for automated code review suggestions. Celery + Redis manages background tasks. Designed REST APIs and microservices for scalable repository analysis, ensuring modularity and maintainability.
- **Multi-Model Ensemble for Noisy Data Classification (Titanic Dataset)**
End-to-end ML pipeline for noisy real-world data. Preprocessed datasets, implemented Decision Tree, Naïve Bayes, SVM, and ensemble methods (Bagging, AdaBoost). Evaluated performance using accuracy, precision, recall, F1-score, and confusion matrices. Improved model robustness and generalization on noisy data. [\[GitHub\]](#)
- **Heart Disease Prediction Dashboard (ML + Streamlit)**
Interactive ML dashboard for healthcare risk prediction. Trained Logistic Regression, Random Forest, and SVM models. Real-time predictions, ROC curves, confusion matrices, and feature importance analysis. Developed user-friendly interface for patients and healthcare professionals. [\[GitHub\]](#)
- **Tweet App Website (Django)**
Full-stack Django application with RESTful backend. Implemented authentication, CRUD operations, reusable templates, and SQLite database integration. Designed REST endpoints for scalability and maintainability. [\[GitHub\]](#)
- **Stock Price Prediction and Revenue Analysis (Data Science Project)**
Data-driven project analyzing Tesla and GameStop stock data using Python, yfinance, BeautifulSoup, and Selenium. Built end-to-end pipelines for stock data extraction, revenue scraping, data cleaning, and visualization. Implemented JSON storage, index resetting, and time-series plotting to analyze historical trends. Visualized stock closing prices with Matplotlib and generated comparative revenue insights. Provides predictive insights for decision-making in finance using historical and scraped data. [\[GitHub\]](#)
- **AI Resume Analyzer (NLP Pipeline)**
NLP-based system for parsing and analyzing resumes to extract key insights. Implemented preprocessing, feature extraction, and evaluation models to provide actionable recommendations. Built with Python NLP libraries, enabling real-time resume assessment and automated skill analysis. [\[GitHub\]](#)
- **Python Automation & Bots (Freelance)**
Developed Selenium-based automation scripts, email and WhatsApp bots, and backend pipelines for multiple niche workflows. Built AI-powered chatbot with a knowledge base using NLP pipelines for regex-based information retrieval and response generation. Enhanced workflow efficiency and reduced manual intervention.

CERTIFICATIONS

- **Python for AI, Data Science, and Development** — IBM
- **Python Project for Data Science** — IBM