

# Jalal Ur Rahman

## AI Engineer | Full Stack Software Engineer

Computer Science undergraduate specializing in AI, Full Stack Development, and Intelligent Automation Systems. Experienced in building AI-powered web applications, automated testing platforms, and scalable backend systems using Python, FastAPI, React.js, PostgreSQL, Docker, and Playwright. Strong understanding of REST APIs, browser automation, Generative AI, and responsive web development.



✉ jalalurrahman620@gmail.com

☎ +923425481024

📍 P/O Warsak District Lower Dir Tehsil Ade nzaï, Timargara, PK

🌐 jalalur-rahman-71ba8a262

👤 JalalUrRahman12

## EDUCATION

### Bachelor of Science in Computer Science

Namal University Mianwali

Oct 2022 - Jun 2026

#### Courses

Object-Oriented Programming, Data Structures & Algorithms, Software Engineering, Artificial Intelligence, Machine Learning, Natural Language Processing, Web Development, Database Systems, Operating Systems, Parallel & Distributed Computing, Information & Cyber Security, Data Analysis & Visualization

## PROJECTS

### WebSpector: Agentic AI-Powered Website QA System

Python, FastAPI, React.js, PostgreSQL, Docker, Playwright

Developed an AI-powered website testing and QA automation platform. Built multi-agent workflow for test planning, execution, and AI-generated reporting. Implemented browser automation, multi-page crawling, and responsive testing. Integrated Gemini and Claude APIs for intelligent analysis and reporting.

### HarmonicMatch: AI Humming Song Recognition System

Python, Machine Learning, Scikit-learn

Developed a system for identifying songs from humming input. Implemented MFCC, Chroma Features, and FastDTW similarity matching. Improved recognition accuracy through feature engineering.

### Jarvis: AI Voice Assistant

Python, Speech Recognition, Automation

Built a desktop AI assistant for task automation and media control. Implemented voice-based command execution and web search features.

### DevFolio: Student Project Repository Platform

React.js, Node.js, Express.js, MongoDB

Developed a full stack platform for showcasing student projects. Built REST APIs, authentication system, and responsive frontend UI.

### Urdu-English Code-Switched Sentiment Analysis

Python, HuggingFace, mBERT, XLM-RoBERTa

Developed a sentiment analysis pipeline for Urdu-English code-switched social media text. Fine-tuned multilingual transformer models for sentiment classification tasks. Evaluated model performance on mixed-language datasets using NLP techniques.

## SKILLS

Python JavaScript C++ SQL React.js HTML5  
CSS3 Tailwind CSS FastAPI Flask Node.js  
Express.js Rest.APIs PostgreSQL MongoDB  
MySQL Machine Learning Generative AI NLP  
LLM Integration AI Agents Browser Automation  
Playwright Selenium Docker Git GitHub  
Postman Scikit-learn Pandas NumPy Matplotlib

## LEADERSHIP & ACTIVITIES

### Namal Society for Social Impact (NSSI)

Head of Education Wing

Led and coordinated a team of 30+ volunteer teachers. Organized free educational and mentoring sessions for school students.

## RESEARCH & PUBLICATIONS

### ML-Based Fake Job Listing and Recruitment Scam Detection

Under Review – IEEE

Co-authored a review paper surveying traditional ML through LLM based approaches for detecting fraudulent joblistings and recruitment scams. Covered model interpretability using Explainable AI techniques including SHAP for transparent prediction analysis. Co-authored with Sultan Haider, Department of Computer Science, Namal University Mianwali.

## LANGUAGES

English

Professional Working Proficiency

Urdu

Native or Bilingual Proficiency

## INTERESTS

Artificial Intelligence Machine Learning  
Full Stack Web Development  
Automation Tools Development Technology Exploring