MUHAMMAD USAMA

JUNIOR PYTHON DEVELOPER

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PROFESSIONAL SUMMARY

Motivated and detail-oriented Junior Python Developer with a strong foundation in object-oriented programming, data structures, and software engineering principles. Demonstrates a solid understanding of the software development lifecycle, including requirements gathering, design, implementation, testing, and deployment. Proficient in writing clean, efficient, and maintainable Python code for a wide range of applications, including web development, data processing, automation, and API integration. Experienced in using Python frameworks such as Flask and Django to build scalable and secure web applications. Comfortable working with relational databases like MySQL and SQLite, with hands-on knowledge of writing optimized queries and designing normalized schemas. Familiar with front-end technologies including HTML, CSS, and basic JavaScript for full-stack development. Skilled in using Git for version control, debugging tools for problem-solving, and unit testing frameworks to ensure code reliability and performance. Knowledgeable in RESTful API design and integration, enabling seamless communication between backend services and client applications. Completed multiple academic and personal projects, including a Smart Traffic Monitoring System using YOLOv8, ESP32, and Python for real-time signal control based on vehicle detection and inflow data. Passionate about IoT and embedded systems, with experience programming ESP8266/ESP32 microcontrollers using Arduino IDE and integrating them with platforms like Firebase and ThingSpeak. Excellent team player with strong communication skills and the ability to adapt quickly in fast-paced environments. Continuously seeking opportunities to learn new technologies and improve existing skills. Eager to contribute to innovative, real-world projects that solve meaningful problems and create user-centric solutions. Actively looking for opportunities in software development or IoT-focused roles where I can grow as a developer and contribute to impactful products and teams.

EDUCATION

BS SOFTWARE ENGINEERING
Capital University of Science & Technology • 2021 - 2025

F.SC (PRE ENGR.)
Punjab College of commerce • 2019 - 2020

MATRIC
Army public school and college system misrial road rawalpindi • 2016 - 2018

LANGUAGE

- English
- Urdu
- Punjabi

HOBBIES

- Volunteering Work
- E-Gaming

CERTIFICATIONS

INTRODUCTION TO FRONT-END DEVELOPMENT COURSE
Authorized by Meta and offered through Coursera • Jun 2, 2023

PROGRAMMING WITH JAVASCRIPT COURSE
Authorized by Meta and offered through Coursera • Sep 13, 2023

LEARN TO CODE IN PYTHON : BEGINNER TO ADVANCE
Authorized by Udemy • july 19, 2025

PYTHON FOR EVERYONE MASTER THE BASICS OF PROGRAMMING
Authorized by Udemy • july 19, 2025

VOLUNTEERING EXPERIENCE

FREE BLOOD CAMP SOCIAL SERVICE CERTIFICATE
Agrivarsity Scout Group, UAF, 05 - 06 Dec 2018

SOCIAL VOLUNTEER SERVICE
Cust Helping Hand, 13 Sep, 2024

TECHNICAL PROJECTS

Smart Traffic Automation

Engineered an intelligent, IoT-based traffic management system integrating computer vision and embedded technologies. Utilized YOLOv8 and the SORT algorithm for real-time vehicle detection and tracking, enabling dynamic traffic signal allocation based on live inflow data. Developed a Python backend communicating with ESP32 via Wi-Fi sockets to control physical signals. Designed a React-based web dashboard for live monitoring, manual override, and system status visualization.
Technologies: Python, ESP32, YOLOv8, SORT Algorithm, Arduino IDE, React, Socket Programming

Smart Parking System

Detects available parking spots using real-time video feed and computer vision. Allocates slots dynamically and provides a dashboard for users.
Technologies: Python, OpenCV, YOLO/Mask R-CNN, Django, Firebase, Raspberry Pi

Automatic Number Plate Recognition (ANPR) System

Uses OCR and object detection to identify and extract vehicle number plates from live video streams for surveillance or tolling purposes.
Technologies: Python, OpenCV, EasyOCR, YOLO, Flask

Automatic Number Plate Recognition (ANPR) System

Captures and identifies faces to mark attendance automatically, storing data in a backend or cloud.
Technologies: Python, OpenCV, Face Recognition library, Firebase, Flask

SKILLS

PROGRAMMING

- HTML 75%
- CSS 75%
- JavaScript 75%
- Python 90%
- C/C++ 90%
- Node js 65%
- Version control 75%
- FireBase 65%
- Git/GitHub 80%
- PHP 90%

SOFT SKILLS

Time Management, Problem Solving, Teamwork, Leadership, Openness to criticism, Decision-making, Creativity.

PORTFOLIO

View my projects and source code in my portfolio:

https://usamamugha-l.github.io/github-repository/