

Haroon Saleem

Senior Senior Python Developer

SUMMARY

Senior Python Developer with 5+ years specializing in scalable backend systems, RESTful APIs, and AI-driven data pipelines using FastAPI, Django, and Flask. Proven expertise in LLM integration (OpenAI, Deepgram, Vapi) and prompt engineering for real-time AI workflows. Experienced in microservices architecture, cloud DevOps (AWS, Docker, CI/CD), and data processing with Pandas and NumPy. Holds a BSc in Electrical Computer Engineering and currently pursuing MSc, with a strong foundation in software development best practices and system design.

TECHNICAL SKILLS

Main Technical Skills	Python (5 yr.), FastAPI (3 yr.), Flask (5 yr.), Django REST framework (3 yr.)
Programming Languages	Python (5 yr.)
AI & Machine Learning	AI, ElevenLabs (1 yr.), LLM, NumPy (5 yr.), OpenAI, OpenCV (1 yr.), Prompt Engineering, Scikit-learn (1 yr.), TensorFlow
Python Frameworks	Django, Django REST framework (3 yr.), FastAPI (3 yr.), Flask (5 yr.)
JavaScript Frameworks	Node.js, React (2 yr.)
Python Libraries and Tools	NumPy (5 yr.), Pandas, pytest (1 yr.), Scikit-learn (1 yr.), TensorFlow
JavaScript Libraries and Tools	p5.js (2 yr.), React Hooks
Data Analysis and Visualization Technologies	Dashboards, ETL, Pandas
Databases & Management Systems / ORM	MySQL, NoSQL, PostgreSQL (2 yr.), SQLite
UI Frameworks, Libraries, and Browsers	Foundation
Cloud Platforms, Services & Computing	AWS
Industry Domain Experience	Embedded
SDK / API and Integrations	API (1 yr.), FastAPI (3 yr.), RESTful API, Stripe (2 yr.), Twilio (2 yr.)

QA, Test Automation, Security	Automated testing, pytest (1 yr.)
Blockchain and Decentralized Software	BSC
Deployment, CI/CD & Administration	CI/CD (2 yr.), DevOps
Platforms	CRM
Virtualization, Containers and Orchestration	Docker
Version Control	Github Actions (2 yr.)
Operating Systems	Linux, Unix (2 yr.)
Methodologies, Paradigms and Patterns	microservices (2 yr.), microservices architecture, Refactoring, System Design
Web/App Servers, Middleware	Nginx
UI/UX/Wireframing	Responsive Design (5 yr.)
Mail / Network Protocols / Data transfer	Routing, WebRTC (1 yr.)
Other Technical Skills	Backend, Data Processing, Data Transformation, Observability, Software Development, Subscription management, Tools, Unreal Engine (1 yr.)

WORK EXPERIENCE

Senior Full Stack Developer (Python Backend Focus), AI-Powered Voice CRM Platform

Duration: January 2024 – January 2026

Summary:

- Architected and developed a scalable backend serving a multi-campaign CRM with embedded AI dialer tools
- Implemented data transformation pipelines processing millions of call records, delivering analytics to admin dashboards
- Integrated Stripe via secure webhooks and built automated subscription management, reducing manual overhead by 70%

Responsibilities: Designed and developed scalable backend services using Django and FastAPI to handle high-volume call traffic and user data, serving structured, optimized data to React-based SPAs. Built and maintained robust RESTful APIs for a multi-tenant CRM platform, enabling fine-grained permissions, real-time analytics, and embedded telephony tools. Engineered data processing pipelines transforming call logs and user analytics into structured outputs for dashboards and frontend visualizations. Integrated multiple third-party voice AI services (Telnyx, Twilio) and designed webhook-controlled call routing logic, improving system reliability and observability. Led the refactoring of legacy systems for improved maintainability and scalability, reducing technical debt and enhancing performance. Implemented automated testing strategies (PyTest) and CI/CD pipelines,



ensuring high code quality and system reliability.

Technologies: Python, Django, FastAPI, React, PostgreSQL, LLMs, Stripe, PyTest, CI/CD, Telnyx, Twilio

Full Stack Developer (AI API Development), Real-time AI Assistant with LLM Integration

Duration: April 2023 – December 2023

Summary:

- Built a proof-of-concept AI assistant leveraging multiple LLM and voice APIs, later scaled to a production-grade feature handling concurrent user sessions
- Designed the prompt engineering framework for context-aware interactions and content summarization

Responsibilities: Developed an AI-powered voice assistant pipeline integrating Livekit, Deepgram, ElevenLabs, and Vapi, enabling real-time speech-to-text, LLM processing, and text-to-speech for dynamic customer interactions. Built and consumed RESTful APIs to connect AI services with frontend applications, focusing on low-latency, structured data delivery. Collaborated closely with frontend teams to design API contracts and data structures for seamless integration with React-based applications. Experimented with LLM prompt engineering and AI-powered content summarization to enhance assistant capabilities and automate data analysis tasks.

Technologies: Python, Vapi, Deepgram, ElevenLabs, FastAPI, Livekit, React

Trainee Engineer – VSAT Engineering Department, Enhanced Palm Print Recognition System

Duration: August 2022 – September 2023

Summary:

- Developed a biometric authentication system using advanced image processing and machine learning techniques, achieving 99
- 2% accuracy
- Processed and transformed large image datasets for model training, utilizing Pandas and NumPy for data manipulation

Responsibilities: Optimized data communication systems for real-time remote connectivity, analyzing and improving data flow and system performance. Developed monitoring scripts (Python) to validate infrastructure and reduce downtime through proactive diagnostics.

Technologies: Python, OpenCV, scikit-learn, NumPy, Pandas

EDUCATION

• MSc Electrical Computer Engineering

National University of Science Technology, Islamabad, Pakistan
2024–Present

• BSc Electrical Computer Engineering

Capital University of Science Technology, Islamabad, Pakistan; Final Year Project: Enhanced Palm Print Identification System Using Document Scanner (2nd Place)
2020–2024



CERTIFICATION

- Asterisk Certified Essentials Certificate
- OpenSIPS Training 3.2 Certificate
- PBXact Certified Essentials Certificate

