

NABEEL HUSSAIN

PYTHON DEVELOPER

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Johar Town, Lahore, Pakistan

SUMMARY

Senior Python Engineer with 6+ years of experience crafting scalable, high-performance backend systems for modern, AI-powered platforms. Specialized in RAG, LLM integration, and multi-agent architectures driving intelligent automation. Expert in building resilient data pipelines, event-driven services, and distributed infrastructures. Passionate about merging backend excellence with cutting-edge AI to deliver real-time, production-ready solutions.

PROFESSIONAL SKILLS

- **Languages** : Python , C++ , Javascript
- **Backend Frameworks** : Django, FastAPI, Flask, Django REST Framework, Microservices, GraphQL, WebSockets, Celery
- **Frontend** : Html, CSS, bootstrap, JQuery, Ajax, Chart.js
- **Databases** : PostgreSQL, MySQL, GraphQL, Monogdb, Redis, ElasticSearch
- **AI/ML/LLM**: LLM, RAG, Agentic AI, Claude API, GPT-4, LangChain, LlamaIndex, Transformers, Vector Databases
- **DevOps** : AWS(EC2, Lambda, RDS,EBS, S3, Nginx, CloudWatch,Terraform,CI/CD, Jenkins), Docker

WORK EXPERIENCE

CONOVO TECHNOLOGIES

(Aug 2023 - Present)

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- Designed and implemented a text extraction architecture using PaddleOCR for OCR and SpaCy transformers for text classification, enhancing data processing pipelines.
- Worked on FaceFusion, developing AI-driven face-swapping for images and videos using deep learning models.
- Optimized model performance for realistic face transformations, enhancing accuracy and efficiency.
- Architected and deployed scalable backend solutions on AWS, including dockerizing applications for efficient deployments.
- Led a web scraping project across 250+ websites using Airflow, Scrapy, and Selenium, processing large datasets with numpy and pandas, improving project performance by 30% through advanced data processing techniques to ensure data accuracy and actionable insights.
- Maintained comprehensive system architecture and API documentation to facilitate knowledge transfer and project continuity.
- Supervised and mentored a team of three junior developers, providing code reviews, guidance, and ensuring adherence to best practices.

ARHAMSOFT TECHNOLOGIES

(Oct 2018 - Aug 2023)

Johar Town Lahore, Pakistan

- Enhanced image analysis capabilities by implementing a YOLO model for object detection and developed supporting REST APIs using FastAPI.
- Reduced system response time from 24 seconds to 1 second by optimizing database queries, backend processing, and improving text integration vectors using similarity search algorithms, significantly enhancing user experience.
- Integrated payment gateways like Stripe for seamless transaction processing within applications.
- Integrated Slack with Jira to streamline project management workflows, improving communication and task tracking across development teams.
- Engaging with clients to gather and clarify requirements, ensuring alignment with their expectations and project objectives.

PROJECTS

21Swap

(Python, TensorFlow, OpenCV, Flask, AWS - EC2, S3, GPU Instances)

- Led the development of an AI-powered face-swapping system for image and video generation using deep learning models.
- Designed and optimized neural networks for high-fidelity face transformations, ensuring realistic and seamless outputs.
- Implemented GPU acceleration for efficient real-time processing, reducing inference time by 40%.
- Developed automated data preprocessing and augmentation pipelines to enhance model robustness and accuracy.

Hades

- (Qwen2.5,Apache Airflow, Scrapy, PostgreSQL, AWS - EC2, S3,LLM, Claude3.5)**
- Spearheaded the development of an application to track and filter sellers of fake products
 - Designed and implemented the backend from scratch, led a team of three developers.
 - Utilized Apache Airflow for scheduling scraper DAGs to manage the scraping process efficiently.
 - Overcame scaling issues by optimizing database queries, resulting in a 30% performance boost.
 - Automate the scraper maintenance process using custom trained LLM Model

EnvelopeAI

- (YOLOv8, PyTorch, OpenCV, OCR, Google Colab)**
- Developed a custom object detection model to identify sender and receiver information on envelopes using YOLOv8.
 - Enhanced model accuracy by 25% through iterative training with annotated data, improving detection of handwritten text.
 - Integrated OCR for automated extraction of handwritten text, enabling efficient data processing.
 - Utilized Google Colab for scalable training and rapid experimentation, reducing model development time by 30%.

AssetCurve

- (Django,DRF, PostgreSQL, AWS - S3,RDS,CloudFront, EC2,Nginx,Stripe)**
- Developed a comprehensive asset management solution focusing on security, cost-effectiveness, and scalability.
 - Monitored IT hardware and users, providing insights into equipment costs and streamlining recertifications.
 - Managed company data, applications, and associated users, ensuring efficient and secure operations.
 - Utilized AWS services (S3, RDS, CloudFront, EC2) for scalable infrastructure, with Django and DRF handling backend functionality and Stripe for payment processing.

EDUCATION AND CERTIFICATIONS

BACHELOR IN SOFTWARE ENGINEERING

(2017 - 2021)

GC University, Faisalabad