

FALAK SHAIR

☎ 0340-2822957 ✉ falakshair563@gmail.com 🔗 [linkedin.com/in/falak-shair-software-engineer/](https://www.linkedin.com/in/falak-shair-software-engineer/)
🌐 <https://github.com/FalakShair01> 🏠 <http://falakshair.me/>

Technical Skills

Programming Languages: Python, JavaScript, Java, Clojure, ClojureScript, SQL, Bash
Web Development: Django, FastAPI, Django REST Framework, Node.js, React.js, HTML/CSS, Bootstrap
Machine Learning & AI: OpenAI, LLMs, RAG, TensorFlow, LangChain
Data Science & Engineering: ETL pipelines, Matplotlib, Numpy, Pandas
Databases: PostgreSQL, MySQL, MongoDB, Vector Database, Redis, BigTable, Cassandra
DevOps & Tools: Docker, Docker Compose, Kubernetes, CI/CD, Git, Nginx, AWS (S3, EC2, RDS), Google Cloud AI
Miscellaneous.: REST APIs, GraphQL, Hasura, Microservices, Web Scraping, Automation, Event-Driven Architecture

Experience

ISSM.ai

Aug 2024 – Present

Python Engineer - full-time

Karachi, Pakistan

- Collaborated with top engineers to deliver cutting-edge AI solutions in a fast-paced startup environment.
- Adapted quickly to Docker-based architecture and contributed to developing a backend system capable of scaling to millions of users.
- Led the deployment of backend systems for Bank Alfalah, ensuring seamless integration with enterprise infrastructure.
- Deployed scalable backend systems for top banks in Pakistan, including Bank Al Falah, Faysal Bank and UBL.
- **Technologies:** Python, FastAPI, Docker, Docker Compose, Redis, Kafka, MySQL, MongoDB.

Dormot.io

Dec 2024 – Jan 2025

Machine Learning Engineer (Contract) - Remote

Karachi, Pakistan

- Developed and deployed an AI-powered chatbot trained on proprietary property data, enhancing customer engagement and query resolution.
- Designed and implemented a Retrieval-Augmented Generation (RAG) pipeline to improve chatbot accuracy, leveraging agent workflows for dynamic response generation.
- Built a CI/CD pipeline to automate model deployment, ensuring seamless integration and rapid iteration of AI models.
- Engineered data cleaning and preprocessing workflows, optimizing structured and unstructured property data for improved model performance.
- **Technologies:** Python, FastAPI, LangChain, OpenAI, LLMs, Vector Databases, Docker, CI/CD.

Prolaxies

Nov 2023 – July 2024

Python Engineer - full-time

Karachi, Pakistan

- Designed and implemented a microservices architecture using Django REST Framework and FastAPI, achieving high scalability.
- Developed an API gateway for microservices, enabling low-latency responses and high availability.
- Spearheaded the transition to an event-driven architecture, improving system responsiveness.
- Implemented Redis caching, reducing database query load by 25%.
- Enhanced system reliability by offloading tasks to Celery-based background processes.
- **Technologies:** Python, Django, FastAPI, Redis, RabbitMQ, Celery, PostgreSQL, MongoDB.

Accrue, Inc

Oct 2022 – Jan 2023

Software Engineer Intern- Remote

US, New York

- Contributed to the development of a financial analytics platform, improving API performance for high-traffic applications.
- Identified and resolved critical API bugs, enhancing platform performance and user experience.
- Deployed and optimized backend services on AWS, improving system reliability and scalability.
- Built Python scripts for scraping, cleaning, and merging financial data from diverse sources.
- **Technologies:** Python, Django REST Framework, Flask, AWS (RDS, EC2), Docker, Nginx.

Fifth Thought

June 2022 – Sep 2022

Software Engineer - Intern

Karachi, Pakistan

- Developed REST APIs for an analytical dashboard, enabling users to visualize data effectively.
- Built a secure user authentication system with features like login, signup, and password recovery.
- Designed a CSV import/export feature for an ERP system, reducing manual data entry and minimizing the risk of errors.
- **Technologies:** Python, Django REST Framework, MySQL.

Projects

Colabrain FYP | *Python, Django REST Framework, FastAPI, React.js, PostgreSQL, Redis, Docker* **July 2023 - Dec 2023**

- Led a team to develop "Colabrain," a chatbot powered by open-source large language models (LLMs) for organizational knowledge management.
- Addressed challenges such as fragmented information and knowledge loss, leveraging AI technologies to streamline documentation and searchability.

More projects are listed on my website [click here](#) to explore further.

Education

Sir Syed University Of Engineering and Technology

Bachelor of Science in Computer Engineering

Dec 2019 - Feb 2024

Karachi, Pakistan