

MUHAMMAD ISLAM KAMRAN

Software Engineer, DevOps

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PROFESSIONAL EXPERIENCE

Software Engineer

BITS - Dubai

2024 – Present

BIG Star - Python Developer(FastAPI)

- Development of "Big Star", a product of Baig Group - Dubai
- Backend development utilizing FastAPI with efficient code in Python
- API Design and Development
- Relational DBs, ORMs, Scrapping, Selenium, Automation
- Sqlite, MySql
- AWS, EC2, NoHup, PM2, Load Balancing, RDS
- Team lead for Backend, Frontend and DevOps
- API integration on frontend, Database Integration and Integration of 3rd party APIs i.e Google Maps, Places and Container APIs
- Learning and implementing in the project
- API performance for scalability and enhancement using New Relic
- JWT and Middle wares for security and authentication
- Maintaining code quality, high standard of the project and proper documentation of APIs
- Effective collaboration and strong communication with cross-functional teams

Software Engineer

K2X Technologies, Denmark

2023 – 2024

Rollout - Python Developer(FASTapi)

- Development of "Rollout", a product by K2X Tech
- Backend development utilizing FastAPI with efficient code in Python
- SQLite DB and MySql DB, SqlAlchemy, Alembic
- Learning and implementing in the project
- API performance for scalability and enhancement using New Relic
- JWT and Middle wares for security and authentication
- Effective collaboration and strong communication with cross-functional teams
- Assisting team members with the project
- Maintaining code quality, high standard of the project and proper documentation of APIs
- JWT and Middle wares for security and authentication

DGIPR - Python Developer(Management and Development)

- Development of Back-end for "DGIPR", (Government of KPK (Pakistan)) project
- Site Engineer, live coding at DGIPR center
- Management of the Hardware side of the project
- Dealing with different vendors for the hardware of the project
- Working with both teams as the management person along side development for connecting the project on the site

NEPTUNE - Python Developer/ AI(Flask)

SKILLS & TOOLS

Programming Skills

- Python Web Back-End development
- Scrapping/ Automation with Selenium
- Python, C++, MATLAB, OpenCV

Application Development

- Web Development with FASTapi
- Web Development with Flask
- Web Development with Django

Cloud

- AWS - RDS for Database
- AWS - Elastic Beanstalk, EC2 for deployment.
- Azure for maintaining code
- AWS for maintaining code

Testing Skills

- Automation Testing with Selenium
- Unit Testing
- Data Flow Testing
- API Testing with Postman

Data Processing & Machine Learning

- Manual Data Extraction with python
- Experience with AI/ML pre-trained Model for development

Project Management

- Worked in Agile methodology
- Worked in Scrum methodology
- JIRA, CANBAN, CLICK-UP as sprint management tools
- GITHUB for maintaining code
- Postman for API Testing

Version Control

- GIT, GitHub & AWS codecommit

Database Management

- MySql, SQLite, & MongoDB
- SqlAlchemy, Alembic, ORM

Soft Skills

- Strong communication
- Team management

- Contributed to the development of a AI-GPT-based product at K2X Tech, utilizing my expertise as a Python back-end Flask developer implementing efficient and scalable solutions
- Utilized Amazon Web Services (AWS) with the cloud team to manage and maintain the codebase of the GPT-based product
- Successfully implemented Google Authentication, providing a secure and convenient login mechanism for users also ensured the secure transfer of sensitive information tokens.
- Project delivered to Drip company

ECOWAS - Product Owner(Management)

- "ECOWAS", (Economic Community of West African States)
- An Energy sector project maintaining the energy sources and consumption.
- A project working under the United Nations SDGs (Affordable and Clean Energy, Industry Innovation and Infrastructure, Sustainable Cities and Communities)
- Managing a team of five people

Data Scientist

CareCloud MTBC, Pakistan

📅 2022 – 2023

Rosetta(Django)

- Developed back-end functionality and collaborated with cross-functional teams to create an AI/ML Django-based APIs for "Rosetta", an English language learning web application for school students.
- Contributed to the development of the speaking component of the Language Model project, enhancing student engagement through innovative solutions.
- Used OpenAI Whisper model to improve the quality of the speaking component and enhance overall user experience.

FOX Caregiver(Flask)

- Contributed to the development of "FOX", a web application utilized by older adults in the US for healthcare, built using Flask framework.
- Developed a caregiver component for cognitive impaired individuals, enhancing the user experience for a good number of population.
- Utilized BOT to extract data from medical documents, scoring them based on useful information for medical professionals.

Insurances OCR(Flask)

- Collaborated with QA and front-end teams to make changes to "Insurances OCR", a web application for extracting data from medical insurance cards, built using Flask framework.
- Successfully implemented for 47 commonly-used insurance cards for US customers, providing accurate and efficient data extraction.
- Delivered high-quality data output to front-end team, enhancing overall user experience.

Coding Bot(Flask)

- Collaborated with medical coders to extract and organize data from medical documents, delivering the final dataset to the front-end team.
- Worked on product development for "Care-Cloud Medical Coding", focusing on data extraction
- storage using MongoDB.

EDUCATION

MPhil Computer Science

Quaid-I-Azam University, Islamabad, Pakistan

📅 2020 – 2022

CGPA : 3.70/4.00

Majors

- Advanced Analysis of Algorithms
- Software Systems Specifications
- Information Retrieval Systems

PROJECTS

Masters Thesis Research Project - Multimedia Image Encryption Algorithm

matlab, python, quantum walk, chaos

📅 2021 – 2022

Title: A Highly Secured Image Encryption Scheme Using Quantum Walk and Chaos -Master thesis project

[Link to Paper](#)

- Implemented image encryption algorithm using Quantum Walk and Chaotic logistic map.
- Confusion and Diffusion created in image pixels using Xoring technique.
- Published a journal paper based on the project.

RESEARCH PAPER

Multimedia Image Encryption Algorithm

PYTHON, QUANTUM WALK, CHAOS

📅 2021 – 2022

Title: A Highly Secured Image Encryption Scheme Using Quantum Walk and Chaos -Research Paper

[Link to Paper](#)

- Implemented image encryption algorithm using Quantum Walk and Chaotic logistic map.

REFERENCES

Dr. Rabeeh Ayaz Abbasi

Chairperson Computer Science department

Quaid-I-Azam University Islamabad.

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