SUMMARY

A software engineer passionate about IoT, Generative AI and web applications. I thrive in the dynamic world of startups and love challenging myself in hackathons.

PROGRAMMING SKILLS

Programming Languages & Frameworks - C/C++, Python, Django, Flask, FastAPI

API & Protocols - REST, Web Socket, DRF, Django Channels, Swagger, OpenAPI, MQTT, LoRaWAN, BLE

Architecture - Clean Architecture, Micro-service Architecture, Event-driven Architecture

Databases - MySQL, Postgres, BigchainDB, Redis, PipelineDB,

Cloud Computing - Docker, AWS (EC2 Instance, RDS, Route 53, VPC, S3)

WORK EXPERIENCE

Freelance (Remote, 5-10 hrs/week) 2022-09 - Present

Recessd, ON, Canada

- Maintain and improve the Building Automation System.
- Plan the product roadmap and analyze requirements.
- Lead weekly team meetings, refine backlogs and plan sprints.

Research Assistant 2023-06 - 2023-08

Tampere University, Finland

- Enhancing predictive maintenance with Generative Al.
- Harnessing the Power of GPT-4 API for Interactive IoT Platforms.

Software Developer (Remote) 2022-05 - 2022-09

EventMobi, ON, Canada

- Contributed to the development of web applications by adding new features, using technologies such as Python, Flask, Celery and Clean Architecture.
- Made significant contributions to the identification and resolution of bugs, as well as improvements to the authentication and authorization processes.

Lead Python Developer (Remote) 2022-01 - 2022-04

SimplifyVMS, NJ, United States

- Led a team in the design and development of SAAS applications using technologies such as Python, Django, Celery and Micro-service Architecture.
- Translation of business requirements to technical specifications.

Lead Python Developer (Remote) 2021-10 - 2021-12

Merit Incentives, Dubai, UAE

- Ensuring team members adhere to established software quality standards through coaching and guidance.
- Leading code reviews and setting team standards for programming tools, techniques and style. (Agile, PEP8, Unit/Integration Testing, Development workflow, FastAPI, Celery, Micro-service Architecture)

Python Developer (Freelancer) 2018-04 - 2021-08

Freelance

- Design and Development of Building Control System for a start-up in Canada. Project was architected to monitor and control devices e.g., Switches, Dimmers, Thermostats, Outlets, Relays, Motion Sensor, Door Sensor and Smoke Sensor etc. (Django, Bootstrap, Celery, Mosquitto).

© Muhammad Kamran curriculum vitae Page 1/2

Software Engineer 2016-12 - 2021-03

Tekfocal, Lahore, Pakistan

- Architected in-house IoT platform. Developed stream processing, device integration and batch processing modules. Containerized platform through Docker. Performed horizontal scaling of platform through Amazon Elastic Kubernetes service. (DRF, Celery, Mosquito, MQTT, LoRaWAN).

EDUCATION

Master's Degree in Information Technology 2022-09 - Present

Tampere University

Tampere, Finland

B.Sc. Electrical Engineering 2012-09 - 2016-08

University of Engineering and Technology

Lahore, Pakistan

LANGUAGES

Urdu - Mother tongue

English - IELTS: C1

VOLUNTEER EXPERIENCE

During Bachelors: 2013-02 - 2016-08

Teaching Physics and Mathematics in a Trust school (Umeed School, Lahore, Pakistan)

Arranging coding and robotics workshops for 9 th and 10 th grade community students.

 ${\it Career Counselling of community students and increasing awareness of science.}$

During Masters: 2022-08 - Present

Participated in Deep Dive 2023.

Winner of Dash Hack 2023.

Actively involved in the events of organizations/guilds at the university (TiTe, INTO).

Serving as an International Student Tutor for TiTe and INTO.

HOBBIES and INTERESTs

Books reading, Movies & Documentaries, Wall Climbing, Swimming, Chess, Table Tennis, Badminton, Hiking, Travelling & Camping.

© Muhammad Kamran curriculum vitae Page 2/2