Imrul Kais Khan

Software & IoT Engineer
Dhaka, Bangladesh
Email : imrulkaiskhan@gmail.com

Github:https://github.com/imrulkk89
LinkedIn:https://linkedin.com/in/imrul-kais-khan
Portfolio:https://imrul.dev
Phone: +8801777078574

SUMMARY

IoT and Software Engineer with more than 5 years of experience offering versatile skills in backend, frontend, cloud services, embedded system, and PCB designing; ready to contribute to a dynamic team with commitment and collaboration.

SKILLS

Backend Development	NodeJS, TypeScript, ExpressJS, NestJS, OAuth, Jest, Swagger, MQTT
Database Management	MySQL, PostgreSQL, SQLite, MongoDB, Redis
Frontend Development	SASS, CSS Module, ReactJS, VueJS, Redux, Vuex, Ant Design, Material UI
Cloud Services (AWS)	EC2, VPC, Subnet, NAT, Routing Table, Security Group, IAM, Route53, RDS, S3, Load Balancer
Cloud Services (GCP)	Compute Engine, Cloud Network, Cloud DNS, GCS, GKE, BigQuery
DevOps	Linux Server, Docker, Kubernetes, Nginx, Terraform, Github Actions, CI/CD Pipeline
Embedded System & PCB	AVR MCU, STM32 MCU, Arduino, ESP32, KiCad, Altium Designer
Project Management	Agile Development, JIRA, Azure DevOps, Sprint Planning, Tasks, Git Commit, Design Documents

WORK EXPERIENCE

Senior Backend Engineer at MeldCx [Australia] [Liaison Office]   Aug 2022 - Jul 2023

- Designed and launched the mHotel application, streamlining hotel check-in/check-out processes by integrating with various Property Management Software (PMS).
- Implemented a self-check-in/check-out feature, reducing guest wait times and enhancing satisfaction.
- Standardized API response transformation, improving efficiency and consistency across different API interfaces.
- Enhanced transaction security by integrating payment systems with Shift4, ensuring encrypted credit card attachment to hotel reservations.
- Developed a robust payment processing library for the Frontend in JavaScript, adhering to SOLID principles and design patterns, enhancing payment reliability.

Intermediate Full-stack Engineer at Bitstrapped [Canada][Remote]   Dec 2021 - Jul 2022

- Provisioned Google Smart Factory 4.0 to Boston Dynamic Cloud using Terraform.
- Enabled real-time data transmission from Boston Dynamic's Spot Robot to Google Smart Factory via PubSub channel.
- Developed Python-based image processing code for deployment on Boston Dynamic's Spot Robot.
- Conducted R&D on Airbyte ETL Tool, creating custom sources and destinations.
- Designed Google Cloud Infrastructure for efficient data pipeline execution.
- Leveraged Google Container Registry (GCR) to push Airbyte source and destination.
- Automated Airbyte deployment within GCP Infrastructure.
- Extracted Spotify data through API using Airbyte custom source and designed SQL queries using Python DBT Tool for data transformation in ETL process.

Full-Stack Engineer at BrainStation-23 [Dhaka, Bangladesh]   May 2020 - Nov 2021

- Engineered a Fintech Application linking banks in the USA and Mexico.
- Translated Adobe XD & Figma designs into ReactJS frontend interfaces.
- Documented all APIs using Swagger and wrote Unit Tests and Integration Tests.
- Assisted in project management and mentored junior engineers.

Software Engineer at CarBangla**(Ride Sharing App)** [Dhaka, Bangladesh]   Nov 2018 - Mar 2020

- Developed an eCommerce and ride-sharing app backend from the ground up, architecting AWS Infrastructure for smooth operation.
- Designed the database schema, integrated PayPal payment, Email Confirmation, OAuth, and implemented mobile-friendly RESTFul API.
- Developed Frontend with ReactJS & Redux, enabled PWA capabilities with Service Worker and configured Nginx for both ReactJS and NodeJS App.
- Implemented Geospatial search and query through MongoDB and real-time driver tracking using MQTT.
- Configured various AWS Services like RDS, S3, EC2, and transitioned from a monolithic to a Micro-service based system.
- Implemented CI/CD with Github Actions.
- Tuned the AWS Infrastructure to handle 100,000 requests per day.
- Converted AWS Infrastructure to Terraform code for seamless deployment.

Node.js Engineer at Korbyt **(Digital Signage)** [USA] [Contract]   Feb 2018 - Oct 2018

- Developed a Digital Signage app using ElectronJS for Embedded Windows Machines.
- Added features for rendering animations, playing Ads, videos, and slideshows on schedule.
- Worked on core Windows features like Windows registry and low-level Windows API.
- Designed a Real-Time Communication Portal named RMG InView using ElectronJS and Socket.IO.
- Contributed to RMG's Admin Panel developed using Laravel & PostgreSQL.

PROJECTS

ABookStore.co.ke   Github

Tech Stack: Node.js, React.js, MySQL, OAuth, AWS, Terraform

Description: Architected "AbookStore," a Kenyan e-commerce platform, using ReactJS (front-end) and NodeJs (back-end). Deployed and optimized on AWS using services like S3, EC2, and RDS. Converted the AWS setup into Terraform code to boost deployability and scalability.

CarBangla (Ride sharing App)   Playstore

Tech Stack: Node.js, TypeScript, MySQL, MongoDB, Laravel, AWS, Terraform

Description: Managed and developed Micro-Services, implemented MQTT-based pub/sub architecture and developed various APIs, admin panel dashboard, and more.

NidleIoT (1st Prototype and MVP)   Client - Intellier

Tech: ATmega1284p, ESP8266, LCD ILI9341, Arduino Framework, Proteus, KiCAD

Description: Research, designed, and developed an IoT-based product to track garment swing operation in real time. Using this smart solution, factories can track, optimize, and digitize their operations in a real-time dashboard, from any location, to enhance efficiency and quality, and reduce production waste.

EDUCATION

BSc. in EEE at **American International University-Bangladesh**

TRAINING

Google Cloud Associate Cloud Engineer — 2022

Training Conducted by: Poridhi.io

Docker Certificate & Kubernetes Certificate — 2022

Course Completed on: KodeKloud