

Imrul Kais Khan

Full Stack Developer

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SUMMARY

Experienced Full Stack Developer offering versatile skills in backend, frontend, cloud services, and data engineering; ready to contribute to a dynamic team with commitment and collaboration.

SKILLS

Backend Development	NodeJS, TypeScript, ExpressJS, NestJS, FeathersJS, RESTful API, Jest, Swagger, OAuth, Pub-Sub, MQTT
Database Management	MySQL, PostgreSQL, SQLite, MongoDB, DynamoDB, CouchDB, Redis
Frontend Development	HTML5, CSS3, SASS, CSS Module, Bootstrap, JavaScript, ReactJS, VueJS, NuxtJS, Redux, Vuex, Ant Design, Material UI
Cloud Services (AWS)	EC2, VPC, Subnet, NAT, Routing Table, Security Group, IAM, Route53, RDS, S3, Load Balancer, Auto Scaling
Cloud Services (GCP)	Compute Engine, Cloud Network, Cloud DNS, GCS, GKE, BigQuery
DevOps	Linux Server Administration, VPS, Docker, Kubernetes, Nginx, Github Actions, CI/CD Pipeline, Terraform
Data Engineering	AirByte, ELT Data Pipeline, Python DBT Tool
Project Management	Agile Development, JIRA, Azure DevOps, Sprint Planning, Backlog, Tasks, Git Commit, Design Documents

WORK EXPERIENCE

Backend Developer at [MeldCx](#) [Australia] Aug 2022 - Jul 2023

- Designed and launched the **mHotel** application, **integrating** with various Property Management Software (**PMS**), resulting in streamlined hotel **check-in/check-out** processes across diverse properties.
- **Revolutionized** the guest experience by creating a **self-check-in/check-out** feature, and enhancing **guest satisfaction** by **reducing** wait times.
- Built a **unified interface** for the mHotel application, **standardizing** API response transformation, and improving efficiency and **consistency** across **different API** interfaces.
- Increased transaction **security** and trust by integrating **payment systems** with **Shift4**, facilitating smooth and **encrypted** credit card attachment to **hotel reservations**.
- Engineered a robust **payment processing library** for the Frontend in JavaScript, adhering to **SOLID principles** and utilizing **design patterns**, leading to seamless integration with the **Shift4** payment system and enhancing payment **reliability**.

Intermediate Full-stack Engineer at [Bitstrapped](#) [Canada] Dec 2021 - Jul 2022

- Worked with **Google Smart Factory** and provisioned it 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.
- Configured Looker-administered Google **BigQuery** for streamlined data analysis.
- Conducted R&D on **Airbyte ELT Tool** and created 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.
- Utilized Airbyte custom source to extract **Spotify** data through API and loaded it into **Google BigQuery**.
- **Partitioning & Clustering** the **BigQuery** Table for better performance.
- Extract **Spotify** data through API using Airbyte custom source.
- Design various SQL Queries using python **DBT** Tool for (**T**)ransforming data in **ELT** process.

Full-Stack Developer at **BrainStation-23** [Bangladesh]

May 2020 - Nov 2021

- Developing a **Fintech** Application which was connected with different banks in the USA and Mexico.
- Making API calls to different banks and conveying the response to Mobile Applications.
- Code **refactoring**, code optimization, performance-enhancing, implementing **design patterns** to improve the code quality.
- Documented all APIs using **Swagger**.
- Wrote **Unit Tests** and **Integration Tests** for all APIs.
- Admin Panel Dashboard **Frontend** development.
- Project **Planning**, Design Planning, and **Requirement Analysis** from Stakeholders.
- Transformed Adobe XD & **Figma** design to **ReactJS** Frontend.
- Used **TypeScript** to code ReactJS.
- React **Component** designing.
- Used **Redux-Thunk** for centralized state management.
- Used **Ant-Design** ReactJS library to design the Frontend.
- Implementing complex UI logic, Performance improvement.
- **Project Management** and helping Jr. Engineers.

Software Engineering Manager at **Civilized Technologies** [Bangladesh]

Sep 2019 - Mar 2020

- **Lead** the total development.
- Planned, Designed, and Developed an **eCommerce** web application from the **ground up**.
- Designed the total **database schema** as per requirements.
- Used **AdonisJS** (NodeJS Framework) for the Backend.
- Integrated **PayPal** payment method, Email Confirmation, **OAuth**, ORM, etc.
- Developed Frontend with **ReactJS** & **Redux**.
- Configured Service Worker for **PWA** capabilities.
- Configured **Nginx** for both **ReactJS** and **NodeJS** App.
- **Architect** the **AWS Infrastructure** to run that eCommerce App.
- Configured **Github Actions** and implemented **CI/CD** for quick **deployment**.
- **Converted** the **AWS Infrastructure** to **Terraform** code (**IaC**) for easy deployment.

Node.js Developer at **CarBangla**(Ride Sharing App) [Bangladesh]

Nov 2018 - Sep 2019

- Planned, Designed, and **Developed** ride-sharing app backend from the **ground up**.
- **Architect** the **AWS Infrastructure** to run the backend smoothly.
- Designed **database schema** and **optimized query** for better performance.
- Developed **mobile-friendly** RESTful API.
- Configured various AWS services like **RDS**, **S3**, **EC2** etc with Backend Application.
- **Split monolithic** system to **Micro-Service** based system to handle incoming traffic.
- Implemented **Geospatial search** and query feature through **MongoDB**.
- To get the driver's **car position** in **real-time**, implemented an **MQTT-based** messaging system.
- Also developed many features in the Admin Panel using **Laravel** to operate the Ride Sharing Business.

Node.js Developer at **Korbyt** (Digital Signage) [USA]

Feb 2018 - Oct 2018

- Developed a **Digital Signage** app using **ElectronJS** which runs on an Embedded Windows Machine.
- Add features to render **JS-based** animation, and play Ads. videos, run slideshows on schedule.
- Created **Windows Installer** for that Digital Signage App.
- ElectronJS app **auto update** and **remote machine** deployment mechanism development.
- 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**.
- Implemented new features to RMG's **multi-tenanted SAAS** software which was developed using **Laravel** & **PostgreSQL**.

PROJECTS

Spot on Factory

[Client - Boston Dynamics](#)

Tech Stack: Google Smart Factory, Python, PubSub, MQTT, Docker, Kubernetes, BigQuery

Description: I integrated **Google Smart Factory** with **Boston Dynamics Spot Robots** to **detect** factory **hazards** using **Machine Learning**. It is a new Google Cloud Manufacturing Solution product aimed at transforming traditional industries into Industry 4.0. My role involved gathering and deploying the Google Smart Factory **Terraform** code to the Boston Dynamics Google Cloud account. Additionally, I implemented **real-time** two-way communication between **Spot Robot** and **Google Smart Factory**.

AirByte ETL data pipeline from Spotify to Monstercat

[Client - Monstercat](#)

Tech Stack: Docker, AirByte (ELT pipeline), DBT, Golang, Google Cloud, BigQuery, Terraform

Description: My responsibility was to design a **Google Cloud infrastructure** for **ELT data pipeline**. That Google Cloud infrastructure runs the **Airbyte (ELT Tool)** system and fetches data from **Spotify** and writes those data to a **data warehouse** like **BigQuery**. After loading the data into a data warehouse, here comes my second responsibility. I had to design an automatic system to Transform the data as per customer requirements for Business Analytics and Machine Learning. Finally, I **transformed** the **Google Cloud infrastructure** into a **Terraform** code.

ABookStore.co.ke

[Github Repo](#)

Tech Stack: NodeJs, MySQL, ReactJS, AWS S3, AWS EC2, AWS RDS, OAuth

Description: AbookStore is a Kenyan-based Online e-commerce platform that was built with **ReactJS (Front-end)** and **NodeJs (Back-end)**. This application is deployed in an **AWS environment** and also used AWS resources like **S3, EC2, RDS**, etc. Finally, I **transformed** the **AWS infrastructure** into a **Terraform** code.

CarBangla (Ride Sharing App)

[Home Page](#)

Tech Stack: NodeJs, MySQL, ReactJS, AWS S3, AWS EC2, AWS RDS, OAuth

Description: I was a NodeJS developer there. I worked on back-end development in a Ride-Sharing app named Carbangla. I personally managed and developed 2-3 **Mirco-Services** which handled **concurrent user requests**. I also implemented **MQTT-based pub/sub architecture** to transfer data between the mobile client and server in **real time**. Also developed various APIs as per requirements, **Firebase Cloud Messaging** send to specific clients, Admin panel dashboard development (in **Laravel**) and etc.

Korbyt in RMG Networks (Digital Signage Solution Provider)

[Home Page](#)

Tech Stack: Laravel, NodeJS, ElectronJS, Windows API, Windows Registry, C#.NET

Description: I worked as a backend and desktop app developer, contributing to two applications: **Korbyt**, a **Digital Signage** app built using **ElectronJS**, and **InVIEW**, a **Real-Time** Communication Portal app also based on ElectronJS. In Korbyt, my responsibilities included enabling the software to run digital content like videos, images, and animations downloaded from a remote server. Additionally, I created a **Windows Installer** for the Embedded Windows version, enabling **automatic updates**. I also worked on core **Windows OS** features like **registry** and low-level **Windows APIs**. Apart from that, I implemented new features for RMG's **multi-tenanted SAAS** software, developed using **Laravel** and **PostgreSQL**.

EDUCATION

2008 - 2012 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](#)