

# Imrul Kais Khan

Full Stack Developer [Dhaka, Bangladesh]

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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

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

## WORK EXPERIENCE

**Backend Developer at [MeldCx](#)** [Australia] [Liaison Office] 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][Remote] 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** [Dhaka, 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** [Dhaka, 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) [Dhaka, 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 PHP **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

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### 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 PHP **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 PHP **Laravel** and **PostgreSQL**.

## EDUCATION

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2008 - 2012 BSc. in EEE at **American International University-Bangladesh**

## TRAINING

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### Google Cloud Associate Cloud Engineer — 2022

Training Conducted by: [Poridhi.io](#)

### Docker [Certificate](#) & Kubernetes [Certificate](#) — 2022

Course Completed on: [KodeKloud](#)