

Mehdi Hasan Khan

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Stackoverflow Story: <https://stackoverflow.com/story/mehdikh>

Summary

Backend Software Engineer with **9 years** of professional experience who can also operationalize the code in production, with a focus on creating scalable, maintainable, and impactful products in high-volume and fast-paced businesses. I value empathy, pragmatism, teamwork, and growth mindset. I'm interested in applying my ideas and skills to help companies that have achieved product-market fit and are looking for experts to help with their high-growth and scale.

Skills

Back-end Development

API Development: JavaScript, TypeScript, Node.js, Hapi.js, Express, Apollo Server, GraphQL, REST

Also familiar with: NestJS, Python (Django, Django REST Framework), Go (Golang)

Database Systems: MySQL, PostgreSQL

Log Data Structure: Kafka, Redis Streams

In-memory Stores: Redis

Infrastructure

AWS: RDS, EC2, Load Balancing, Cache, CDN etc.

Google Cloud: Kubernetes Engine, Cloud Sql, Compute Engine, Cloud Function etc.

Containers: Kubernetes, Helm, Docker, Docker-Compose

Automation: Ansible, CI/CD

Experience

February 2020 - Present

MoBerries, Berlin, Germany - *Senior Backend Engineer*

<https://www.moberries.com/>

MoBerries matches candidates with the best suited job. I joined here as a senior backend engineer and I'm contributing to multiple **Node.js** and **Python (Django)** based services. Few of my contributions so far:

- Developed a microservice from scratch using **Node.js** that decorates all CVs exported from MoBerries.
- Developed outbound rate-limiter so that ATS integrations at MoBerries works within the limits of external ATS services.
- Re-implemented a document converter for the CV service at MoBerries as a **NestJS** microservice.
- Added new features and fixes to the existing **Django** and **Django REST framework** based API backend that helped the business grow.

October 2018 - January 2020 (1 year and 3 months)

ShopUp, Dhaka, Bangladesh - *Software Architect*

<https://shopup.com.bd/>

ShopUp (a Sequoia Capital and Omidyar Network backed startup), is a marketplace for online and offline merchants to help them sell on social channels. Here I led a team of 15 engineers with technical guidance, architectural decisions, and hands-on coding, ensuring faster iteration with a balance of producing increasingly more maintainable products. I also worked closely with the founders and business owners and helped them with product and process decisions, and with hiring for key engineer and project manager roles.

- Improved iteration speed and changed everything that was slowing down to deliver results. Features that used to take weeks to release (because there was downtime and manual labor involved) can now be shipped several times a day with greater confidence and without affecting the operation and user experience. This involved setting up integration tests, linting in the codebase, automating server setup to CI/CD that gets triggered from Git repositories, scaling out services and introducing distributed locks, etc. Utilized: **Ansible, pm2, CircleCI, git-crypt, Redis locks, faktory** (task queue), **Jest** for testing, **TypeScript, ESLint, Postgrator** for database migration, etc.
- As a fin-tech startup, ShopUp needs audit logs; as a marketplace, it needs to send transactional notifications and track product Turnaround time (TAT) at every stage of their lifecycle. Placing all these additional tasks along with the core features used to lead to eventual unmanageable code. I improved this process and eliminated spaghetti code by introducing event-driven architecture in response to database changes. Utilized: **Debezium, Kafka, MySQL, PostgreSQL, Node.js**, etc.
- Improved efficiency by 5 times by developing ShopUp's inventory, warehouse and fulfillment services, which was previously a manual spreadsheet-based process. Utilized: **Node.js, TypeScript, Express, MySQL, Squirrelize** etc.
- Developed **GraphQL API** for virtual shops for merchants using **Apollo Server**.
- Improved and refactored Product Category service considering MySQL's capability of handling hierarchical data structure. Utilized: "**Closure Table**" pattern, **MySQL** and **Node.js**.
- Developed a thermal printer server in **Go (Golang)** that automates Chrome to render the images, then rasterize and print that using ESC-POS supported printers.
- Developed an invoicing system integrated with Facebook Messenger using **Go, GraphQL API (Gqlgen), PostgreSQL** using **sqlboiler** ORM etc.
- Helped the organization to take data-driven smart decisions by creating the data pipeline with Segment and Google BigQuery.

January 2016 - September 2018 (2 years and 9 months)

Backpack Technologies, Remote - *Senior Software Engineer*

<https://backpackbang.com/>

Backpack (a Y Combinator-backed startup), is a peer-to-peer platform that connects travelers and shoppers to give people access to products across markets. I helped the organization to take its MVP codebase to production-ready state and as a go-to person for creating Node.js based services in the organization also mentored colleagues with best practices, improved the engineering process by introducing code reviews.

- Developed Backpack's first API platform with **Node.js, Hapi.js, Bookshelf/knex, MySQL, Redis, JWT**.
- Maintained services on **AWS**, then led the transition from AWS to **Google Cloud**.
- Reduced cost of cloud services by several folds by creating and maintaining Backpack's **Kubernetes Cluster** on GCP.
- Focused on maintaining code-quality with **TDD (Jest)**, static type annotation with **Flow type** and linting.

May 2015 - January 2016 (9 months)

HungryNaki, Dhaka, Bangladesh - *Technical Lead*

<http://www.hungrynaki.com/>

Hungrynaki.com is a Bangladeshi Online Food Ordering and Delivery Service.

- Technically led a team of 6 developers. Introduced **TDD** to the development flow, designed CI/CD pipeline, automated. Reduced the cost of cloud services by increasing utilization using **Docker** containers.

January 2014 - March 2015 (1 year and 3 months)

Okdoit, Dhaka, Bangladesh - *Senior Developer*

- Developed front-end for an email-triggered task management app with **Angularjs**. Maintained code quality with TDD and achieved over 90% test coverage.

December 2012 - December 2013 (1 year and 1 month)

Eniacs, Dhaka, Bangladesh - *Consultant*

- Developed real-time auction platform for Bangladesh Government for distributing 3G spectrum in Bangladesh with **Node.js**, **Sails**, **WebSocket (Socket.IO)**
- Developed backend API and Android application for Dnet to collect data from field workers.

May 2011 - November 2012 (1 year and 7 months)

mPower Social Enterprises, Dhaka, Bangladesh - *Lead Android Application Developer*

<https://www.mpower-social.com/>

- Helped develop core platforms for mPower and Johns Hopkins Bloomberg School of Public Health. Maintained custom fork of Google's Open Data Kit Android application. Led a team of android application developers.

Education

2004 - 2010

Mymensingh Medical College, Bangladesh - *Bachelor of Medicine, Bachelor of Surgery (MBBS)*

Certifications

2019 - 2022

JSNAD: OpenJS Node.js Application Developer

*From **The Linux Foundation***

Credential ID: JSNAD-1900-0029-0100

Verification URL: <https://www.youracclaim.com/badges/f61c32ec-8d40-4150-b95d-bca0321fb947>

2019 - 2022

JSNSD: OpenJS Node.js Services Developer

*From **The Linux Foundation***

Credential ID: JSNSD-1900-0023-0100

Verification URL: <https://www.youracclaim.com/badges/b2893655-bba6-47d1-bbb8-43fb40257b62>

Awards

2016

JCI TOYP (Top Ten Outstanding Young Persons)
From *JCI Bangladesh*

2011

BASIS Special Recognition Award
From *Bangladesh Association of Software and Information Services (BASIS)*

Projects

orkid-node

<https://github.com/mugli/orkid-node>
<https://www.npmjs.com/package/orkid>

A modern and reliable **Redis-Streams** based *task queue* for **Node.js**. Written in **TypeScript** and intended to be used in both TypeScript and JavaScript applications.

Started in: August, 2019.

orkid-ui

<https://github.com/mugli/orkid-ui>
<https://hub.docker.com/r/orkidio/orkid-ui>

Using **React** and **Apollo Client** under the hood, the dashboard helps to monitor and manage orkid task queues. Easily deployable as **Docker** container.

Started in: August, 2019.

png2escpos

<https://github.com/mugli/png2escpos>

Quickly convert PNG image files to ESC/POS format, for printing on Epson thermal point-of-sale printers. This utility removes transparency from the image, makes it grayscale and then encodes in ESC/POS format. Written in **Go (Golang)**.

Started in: July, 2019.

orkid-api

<https://github.com/mugli/orkid-api>
<https://www.npmjs.com/package/orkid-api>

GraphQL API using Nexus for type-safe GraphQL schema construction on top of **Redis** commands.

Started in: August, 2019.

go-kill-mysql-query

<https://github.com/mugli/go-kill-mysql-query>

Cross platform CLI tool that interactively shows long running queries in **MySQL server** and provides options to kill them one by one. Written in **Go (Golang)**.

Started in: August, 2019.

Avro Keyboard

<https://github.com/mugli/Avro-Keyboard>
<https://www.omicronlab.com/avro-keyboard.html>

An open source Bengali Input Method Editor (IME) for Windows. Built with **Delphi** and **Win32 API**.

Started in: March, 2003.

ibus-avro

<https://github.com/sarim/ibus-avro>

Co-developed. ibus-avro is an open source Bengali Input Method Editor (IME) for Linux. Built with **JavaScript**, **GNOME/gjs**.

Started in: February, 2012.

avro.im

<https://avro.im/>

Co-developed. Avro.im is an open source Bengali Input Method Editor (IME) for the web.

Started in: May, 2014.