Tanzim Mokammel

Experienced senior software engineer with a proven track record in full stack development and a strong focus on problem solving and software design. Proficient in technologies such as `Typescript` , `Go` , `NodeJS` , and `React` , with a background in leading and mentoring development teams. Recognized for contributions in optimizing systems and driving innovative solutions.

Contact

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Technologies

`Typescript` `Go` | `NodeJS` `React` `NextJS` | `SQL` `NoSQL` `Kafka` | `Git` `Docker` `Kubernetes` `AWS` `GitHub Actions`

Key Skills

Problem solving, software design, mentorship, leadership and communication

Work Experience

Member of Technical Staff, [Cohere](#) | Toronto, Canada, Mar 2024 - Present

- Cohere empowers developers and enterprise with large language models (LLM) and retrieval augmented generation (RAG)

Senior Software Engineer, [Flipp](#) | Toronto, Canada, Jan 2021 - Mar 2024

- Flipp helps North American shoppers save money by aggregating deals and flyers
- I am working on a greenfield web application enabling Flipp's retail partners design digital flyers, leading the charge in migrating off print flyers towards a digital solution
- Key challenges include establishing best practices for building a modern web UI with drag and drop interactions, alongside developing backend APIs and microservices. Frontend technologies include `React` , `Typescript` and `Storybook` , while `Go` , `NodeJS` , `Ruby` , `Kafka` , `AWS` , `Github Actions` and `Kubernetes` are critical on the backend.
- Mentoring peers on concepts such as functional reactive programming, atomic design, concurrency, and testing
- Continuously analyzing and improving existing systems: reduced endpoint latency by 35x through concurrent `Go` code optimization, simplified system architecture by consolidating scattered code across services and languages into a sub-500 LOC `Typescript` package
- On a similar spirit, I have led multiple award-winning hackathon and R&D initiatives. One project enabled automated flyer curation within a full stack `NextJS` app, integrating with OpenAI's `GPT-3.5` large language model (`LLM`). A follow up project enabled semantic search of private product data using retrieval augmented generation (`RAG`): leveraging a locally hosted vector database (`ChromaDB`), and an open source LLM (`mistral:7b`)

Mentor, [CareerFoundry](#) | Remote, Feb 2022 - May 2023

- Mentored aspiring web developers in soft skills and industry processes, offering comprehensive guidance, feedback, and support in a MERN stack curriculum

Full Stack Engineer, [Moonfare](#) | Berlin, Germany, Jan 2020 - Jan 2021

- Moonfare makes investing in private equity easy, currently managing over €2.5 billion in assets
- Developed new features for Moonfare's core web application and taking on the technical challenges to scale the business for a growing client base
- Challenges include designing database models, microservices, and user interfaces in addition to refactoring pre-existing software to improve performance and reduce tech debt
- In one case, I improved endpoint latency by 89% by optimizing asynchronous functions, database queries, and search algorithms
- Mentored fellow developers in algorithms, software design and database management through code reviews, documentation, and educational sessions
- Developed using a `Typescript` based tech stack with `NodeJS` , `React` , and `MySQL`

Full Stack Engineer, [Diginex](#) | Berlin, Germany, Dec 2018 - Dec 2019

- Diginex pioneers blockchain based tools for governments and corporations, working with institutions such as the UN and Microsoft
- I helped develop a cryptocurrency trading platform that aggregates price data and allows algorithmic and manual trading across exchanges
- I worked on internal tools for backtesting arbitrage models using the Bellman-Ford algorithm, load testing, and supporting financial data transfer protocols
- Our tech stack and design principles focused on supporting data streams, analytics, and visualization: `Python` , `Pandas` , `Postgres` , and `Redis` on the backend, `React` with `RxJS` on the frontend, and `AWS` for encryption and user authentication

Contract Backend Engineer, [ReloTalent](#) | Hanoi, Vietnam, Mar 2018 - May 2018

- Developed a microservice to implement an iterative mathematical model for determining salaries during relocation considering tax rates, cost of living, and personal investments using `Python` , `SQL` , and `AWS Lambda`

Sr. Product Development Engineer, [Advanced Micro Devices](#) | Toronto, Canada, Jun 2012 - Nov 2017

- Led the development of system-level test programs and yield analysis with a global team for AMD Radeon products, receiving two Spotlight awards for contributing to over $US 900,000 in company savings

Education

- Master of Engineering, Electrical Engineering | University of Toronto, Canada, June 2015
- Bachelor of Applied Science with Honors, Electrical Engineering | University of Toronto, Canada, June 2012

Interests

Technology, music, travel, [photography](#), fitness, video games