

Abdul Wasay Usmani

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Skills:

- **Languages:** Go, C++, Python
- **Backend:** RPC, Rest APIs, Sockets, Concurrent Applications
- **Databases:** MySQL, SQL Server, Redis
- **Infrastructure:** Docker, Kubernetes, Git actions, Helm, Microservices architecture, Nginx
- **Observability:** OpenTelemetry, Prometheus, Grafana, Sentry
- **Cloud Providers:** Amazon Web Services, Cloudflare, Google Cloud Platform

Work Experience:

Senior Software Engineer - [Safepay \(YC 22 and Stripe Backed\)](#)

Nov 2022 - Present

- Leading the Raast integration to enable instant peer-to-merchant payments, a revolutionary product for Pakistan built on the **ISO 20022** standard with an **asynchronous payment flow**. Implemented this solution both for **Safepay's own product and as a SaaS offering for other financial institutions**. This integration will empower Safepay to develop its own mobile application and offer **zero-cost payments**, as Raast transactions are free of charge. **(Go, MySQL, Redis, RPC, Rest API, Async payment flow)**
- Developed a PCI DSS-compliant vault service with features such as tokenization, caching and encryption (in-transit and at rest), enabling Safepay to introduce offerings like Shopify on-site and API-based raw card handling. This led to seamless integrations with financial institutions and a **400% increase in monthly revenue**. **(Go, MySQL, Redis, AWS KMS, RPC, Rest API)**
- Built a user registration and authentication server using JWT authentication, allowing users to create accounts and securely save up to five payment cards. This streamlined repeat transactions and has been adopted by **20% of Safepay users**. **(Go, Redis, JWT, RPC)**
- Designed and implemented a disputes management system to track disputed transactions, allowing merchants to upload evidence. This system enabled effective arbitration and tracking of **\$1 million worth of transactions**. **(Go, MySQL, RPC, S3)**
- Implemented a Role-Based Access Control (RBAC) system to manage admin panel members and assign roles based on responsibilities. This improved system security and accessibility through granular control mechanisms. **(Go, MySQL, Redis, RPC)**
- Spearheaded the migration of Safepay's infrastructure from Google Cloud Platform to Amazon Web Services, leveraging AWS-managed services for scalability. Optimized costs with free AWS cloud credits, **saving hundreds of thousands of dollars**. **(GKE, EKS, Terraform)**
- Trained backend interns to familiarize them with Safepay's infrastructure, development practices, and tools, ensuring they quickly became productive contributors to the team.

C++ Software Engineer - [Logiciel Services](#)

Jan 2022 - Nov 2022

- Developed a customizable rule configuration system for brokers using a bespoke language, enabling real-time rule parsing and calibration through **Boost Fusion** and **QI parser**. This system generated approximately **\$100,000 in broker fees within the first month** of deployment. **(C++, CMake, Boost Fusion, ASIO and QI parser)**
- Developed a real-time trading simulator based on the FIX protocol. It simulated transactions based on the current stock price, maintained an order book, and simulated a matching engine. This simulator served as a training tool for retail traders and enabled internal testing of new products using live market data. **(C++, Boost Asio, Boost multi-containers, QuickFIX libraries)**
- Worked on a low-latency market data server, which distributed live market data to all our internal services and other clients. **(C++, CMake, Redis, ZeroMQ)**

Education

Habib University

- Bachelor of Science in Computer Science

Aug 2017 - June 2021

(CGPA 3.50)