Aryan Mike Binazir

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Experience

Software Engineer, *Fortress Information Security* 🔗   Oct 2023 – present
- Transformed an alpha-stage full-stack application into a production-ready system by optimizing Node.js backend performance, improving horizontal scalability and memory management, enhancing security in preparation for penetration testing, and implementing new features in both Node.js and React.js
- Leveraged Python and TypeScript/JavaScript to develop backend logic handling heavy API imports and data transformations, as well as serving as a robust backend for front-end functionalities
- Optimized MongoDB performance and ensured data consistency by implementing advanced aggregations and refining indexing strategies in a critical app, including adding indexes to both the app and APM databases

Co-Creator, Software Engineer, *Triage* 🔗   Aug 2022 – Sep 2023
Triage is an open-source proxy for Apache Kafka that addresses head-of-line blocking from poison pill messages and non-uniform consumer latency. It enhances parallel consumption, allowing for at least a tenfold increase in consumer connections per Kafka partition for downstream consumer instances.
- Designed and built Triage using Go, gRPC, Amazon Web Services (AWS) Fargate, and AWS Elastic Container Service (ECS)
- Led development of Triage core components, leveraging Go, including Go Channels & Goroutines to utilize concurrency, enabling parallel consumption of messages for Kafka consumers
- Leveraged Go and its concurrency features to halve the estimated development time compared to single-threaded languages
- Enabled multiple downstream consumer applications to connect to Triage by developing Triage thin client library in Go and a gRPC service, allowing for an at least 1000% increase in connections per Kafka partition
- Containerized Triage service with Docker, streamlining the process of deployment to an AWS ECS cluster
- Automated infrastructure deployment strategy using AWS Cloud Development Kit (CDK)/CloudFormation
- Built Node.js CLI tool, written in JavaScript and available as an npm package to simplify configuration, deployment, and teardown of Triage in the cloud
- Implemented application logic and design components allowing for the storage of poison pill messages in a dead-letter store using AWS DynamoDB
- Collaborated with a remote team of four engineers across two time zones
- Authored technical case study showcasing Triage, available at team-triage.github.io/case-study 🔗

Software Engineer, *Open-Source Projects*   Aug 2020 – Jul 2022
- Developed and deployed multiple full-stack web applications—including an HTTP webhook inspector, a text-sharing platform, an e-commerce site, and a book-viewing application—using technologies such as Python, JavaScript/Node, Express, React, MongoDB, PostgreSQL, Go, MySQL, Ruby, AWS, and Nginx

Start-Up Experience & Real Estate Investments   Jan 2011 – Jul 2020
- Performed investment due diligence for an African start-up merchant bank and built a real estate portfolio in the U.S. and South Africa

Skills

Go | **JavaScript/TypeScript** | **Python** | **Node.js** | **React.js** | **Cloud** — AWS EC2, AWS ECR, AWS Fargate, AWS CDK, AWS S3, AWS DynamoDB | **Databases** — SQL, NoSQL, PostgreSQL, MySQL, MongoDB, Redis |
Mongo Aggregations | **REST APIs** | **Docker** | **Testing** — Unit Tests, Integration Tests, Regression Tests |
Agile Methodologies | **Systems Design** | **Linux** | **Microservices** — Event-Driven Architectures, Message Queues, Apache Kafka | **HTML/CSS** | **Git/Github** | **CI/CD** | **Infrastructure as Code** — Terraform, CDK, CloudFormation |
HTTP | **gRPC** | **Serverless** | **Nginx** | **Bash**

Education

M.B.A, *University of Pretoria/Gordon Institute of Business Science*   2012

B.S. in Computer Science, *University of the Witwatersrand*   2009