

# Mohammad Yousuf Minhaj Zia

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## EDUCATION

### National University of Singapore (NUS)

Aug 18 - Present

- Bachelor of Engineering (Computer Engineering), Hons with minor in Data Engineering (restricted minor)
- Current CAP: 4.53 (Expected First Class Honours) Dean's List 2019/2020 FoE and SoC
- Expected Date of Graduation: May 2022

## WORK EXPERIENCE

### Software Engineer Part-Time, Glints

May 21 - Present

- Implemented backend business logic for internal product in GraphQL and REST API.
- Architected a Kafka pipeline and stream processor in Scala with FP principles, which aggregates on Postgres change data events and sinks to Elasticsearch bringing down sync frequency from 24h to < 1s.
- Implemented an Elasticsearch indexing solution for offline and online integrations.
- Deployed Scala and Kafka Streams application with CI/CD and Kubernetes helm charts.
- Backend and Data Module Code Approver of a product team where I review PRs before being merged to staging and communicate with verify requirements with stakeholders.
- Investigated and resolved production OOMs and latency issues in NodeJS, Redis, Postgres services through query optimizations.
- As a scrum member specified stories, backlog tasks and participated in sprints in an automated Jira workflow

### Co-founder, NUS PeerMark and PeerColab

Aug 20 - Present

- Co-founded a web application for schools and universities for collaborative documentation peer review integrated with Google Docs implemented using Firebase Cloud Functions and Firestore.

### Co-founder, ZiMS

May 20 - Present

- Founded a suite of open-source video conferencing applications currently for general purpose and education verticles.
- Architected frontend and backend applications with CI/CD, security practices, latency, bandwidth and idempotency.
- Currently deployed by Vitamins in Netherlands to connect mental health professionals with people in need of help.

### Intern Software Engineer in Test, Autodesk AutoCAD

Jul 20 - Dec 20

- Migrated 400 test cases from TestComplete to in-house API automation for AutoCAD verticals, ACA and AME, making test execution over 90% faster and leaner reducing test server costs.
- Implemented a VBScript parser in Python to tag GUI operations in approx. 7000 TestComplete test cases and designed analysis metrics to identify suitable candidates for migration.
- Architected and implemented a GUI handler tool using Win32 API, UIAutomation, ObjectARX and .NET which is automation framework and product independent.

## **Intern Machine Learning, NExT++ Research Center**

**May 19 - Dec 19**

- Designed and tested financial sentiment models on financial news for stock market prediction research back-tested models with algorithmic trading libraries zipline and pyfolio (10% return without transaction costs).
- Trained and tested financial lexicon models, Google BERT and deep learning models using Pytorch.
- Processed and filtered approx. 13 million financial news articles to optimize model performance.

## **SKILLS**

**Proficient** Scala, GraphQL, Postgres, Kafka, Typescript, Javascript, Go, C, C#, C++, Java, Swagger/OpenAPI, Python, HTML, CSS, React, Docker, NoSQL, CI/CD, Testing Automation, Agile, JIRA, Pytorch, Pandas, Numpy.

**Exposure** Kubernetes, GCP Compute Engine, AWS EC2, Selenium, Rust, Lua, .NET