# 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**

- As Code Approver for backend and db migrations, I have implemented and coordinated release of a new permissions model and AI-backed recruitment sourcing.

- Architected a Kafka pipeline and stream processor in Scala with FP principles, Hyperloop, which aggregates on Postgres change data events and sinks to Elasticsearch bringing down sync frequency from 24h to $< 1s$.

- Deployed Scala and Kafka Streams application with CI/CD and Kubernetes helm charts.

- 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 Vitaminds 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 backtested 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** Typescript, Javscript, Scala, Go, C, C#, C++, Java, Swagger/OpenAPI, Kafka, Python, HTML, CSS, React, Docker, PostgreSQL, NoSQL, CI/CD, Testing Automation, Agile, JIRA, Pytorch, Pandas, Numpy.
**Exposure** Kubernetes, GCP Compute Engine, AWS EC2, Selenium, Rust, Lua, .NET