

# Mohammad Yousuf Minhaj Zia

yousuf.zia@u.nus.edu | yzia2000@gmail.com | Blog |  yzia2000 |  | +91 70217 91005 | +65 9835 4761

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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: 4.50 (Expected First Class Honours) Dean's List 2019/2020 FoE and SoC
- Expected Date of Graduation: May 2022

## WORK EXPERIENCE

### 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.
- 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.

## PROJECTS

### ZiMS Edu

May 20 - Present

- Founded and architected an open-source multi-party video conferencing web application using WebRTC with vertical implementations for general purpose conferencing and online education.
- Implemented the general purpose vertical using Firebase Firestore and Hosting.
- Deployed Janus SFU Media Server for scalability to meet online education requirements and architected a microservices architecture with Typescript React Frontend and Docker containers of Node API and Postgres databases on Netlify and Heroku.

### NUS Online Feedback System

Aug 20 - Present

- A web application for schools and universities for collaborative documentation peer review integrated with Google Docs implemented using Firebase Cloud Functions and Firestore.
- Implemented backend infrastructure to split and distribute Google Docs between teams by heading with document versions and comments.

### Neural Network Coprocessor using Xilinx FPGA for ARM

May 20 - Jul 20

### Admin and Head of Web Team NUS-IEEE Hackathon

Feb 19

## SKILLS

**Proficient** C, C#, C++, Java, Python, HTML, CSS, Javascript, Typescript, REST, Node, React, NGINX, Docker, SQL, Postgres, Firebase, NoSQL, CI/CD, GitHub Actions, Testing Automation, TestComplete, Agile, Scrum, JIRA, Pytorch, Pandas, Numpy, Heroku, Serverless.

**Exposure** GCP Compute Engine, AWS EC2, Selenium, Go, Lua, .NET, Open-source