

Ziniu GUO

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EDUCATION

National University of Singapore

Aug 2024 – Now

- **Major:** Master of Computing in Information Systems

Singapore University of Technology and Design

Sep 2020 – May 2024

- **Major:** Bachelor of Engineering in Computer Science and Design
- **Academic Honour:** Recipient of SUTD Design and Engineering Scholarship

WORK EXPERIENCES

Ingenico

Part-time Android Developer

Aug 2023 – Mar 2024

- Developed Android-based payment solutions on POS terminals, supporting card (EMV), mobile (QR code) and cryptocurrency transactions
- Collaborated with startups to identify and implement technical solutions, contributing to the development of their Android applications on POS terminals
- Delivered bespoke payment solutions to six startups in 2023, with two additional deployments anticipated in 2024

Bank of Singapore

Java Software Engineer Intern

Aug 2022 – Jan 2023

- Programmed an application to validate and streamline trading messages from core banking (Temenos T24)
- Used Java and Spring framework to process messages, integrating middleware technologies (Solace, TIBCO)
- Refactored legacy codebase triggered by Shell scripts into new Spring Boot projects, aligning with an advanced DevOps pipeline (Jenkins, SonarQube)
- Improved runtime efficiency and project maintainability and reduced computational resource expenditure

ACADEMIC PROJECT

WealthCX Data Analysis Tool

SUTD Capstone Project

Nov 2023 – Mar 2024

- Developed a data analysis tool and an Android app for WealthCX, a financial service provider
- Identified key trends and signals such as bearish, bullish, and inception phases
- Used a Large Language Model (LLM) to interpret sentiments (positive/negative) in stock market news and reports
- Fine-tuned a chatbot based on LLM, empowering it to provide financial guidance to users of the Android app

Trilobita – Distributed System of Pregel Graph Processing Algorithm

SUTD 50.041 Distributed System

Sep 2023 – Oct 2023

- Architected and implemented distributed graph processing system akin to Pregel written in Java
- Leveraged Apache Kafka as middleware solution for messaging
- Implemented features including parallelism, fault tolerance, error recovery, and load balancing

Style Trace Back

15K Entrepreneurship Competition & SUTD Undergraduate Research Opportunities Programme

Jul 2022 – Dec 2022

- Devised a system capable of tracing the origins of fashion product features from images leveraging deep learning
- Developed cross-platform applications that allow users to upload data and use this deep learning model, using Go for backend, and Flutter/Dart for frontend deployment
- Designed crucial frontend components including photo taking, cropping, connection with backend APIs

Simulation & Prediction Model of Infectious Disease

SUTD Honours And Research Programme

Sep 2021 – Dec 2021

- Engineered an SIR-based model, and deployed machine learning to process existing data in real life such as infected and death numbers etc., to optimise the model parameters such that existing data could be fitted to the model and future trends could be predicted
- Created a web application as the final deliverable enabling data input for predictive modelling
- Achieved the Certificate of Excellence for outstanding programme performance

TECHNICAL SKILLS

- Java, Spring framework, Python
- Web Dev (MERN stack, HTML/CSS/JavaScript), Android Dev (Java/Kotlin)
- Tools: Git, Linux, Docker, NGINX, Jira, Confluence, Jenkins

20 October 2023

To Whom It May Concern

Eligibility for Employment Pass

1 Guo Ziniu G1989431U is expected to graduate from Singapore University of Technology and Design and has a Ministry of Education bond obligation to serve in Singapore.

2 This letter serves to inform you that the Singapore government will exercise flexibility in the assessment of the Employment Pass application of Guo Ziniu. You should also use the Self-Assessment Tool on the Ministry of Manpower's website for an indicative assessment on whether the applicant qualifies for an Employment pass. If your company finds this graduate suitable for a position and makes an Employment Pass application to the Ministry of Manpower (MOM), the necessary work pass arrangements will be facilitated after receiving your submitted application. This is subject to the qualifying notes overleaf (as attached), which includes complying with the Fair Consideration Framework.

3 This letter is supported by the Ministry of Manpower and is valid for 12 months from the date of graduation or date of issue, whichever is later.

4 You may email Daniel Cheong, the Career Coach, at daniel_cheong@sutd.edu.sg for clarification. Thank you.

Yours sincerely,



Angelvin C. Parma
Head, SUTD Career Development Centre

Qualifying notes:

- 1 The applicant named overleaf is eligible to apply for an Employment Pass if he/she:
 - (a) secures full-time employment in a company of good standing in Singapore;
 - (b) is to be engaged in managerial, executive or specialised job;
 - (c) submits an application for Employment Pass together with certified copies of educational certificates;
 - (d) is not on Government agencies' adverse record.

- 2 Professionals such as doctors, lawyers, architects, dentists, pharmacists etc. have to register with the relevant professional regulatory body before they are allowed to practise their profession in Singapore. Those who intend to practise their profession would have to seek registration before the Employment Pass is issued.

- 3 This letter does not exempt employers from the Fair Consideration Framework. This includes the requirement to advertise the job vacancies on the National Jobs Bank before submitting an Employment Pass application. Employers should consider all applicants fairly, regardless of nationality.