

EDUCATION

Nanyang Technological University, Singapore
Bachelor of Engineering (Computer Science)

Aug 2019 – May 2023

- Honours (Distinction), GPA: 4.43/5.00
- Specialization in Networking and Cyber-Security
- Achieved Distinction in Compiler Techniques, Systems and Algorithms, Data Science & AI, Human Computer Interaction

WORK EXPERIENCE

JP Morgan Chase & Co.

Aug 2023 – Present

Software Engineer Program – Azure Cloud Enablement

- Reengineered the firm's **Azure infrastructure inventory system** to support its Azure enablement strategy. Previously, the system ingested a full snapshot of all Azure resources every X hours, which was sufficient for the firm's earlier Azure footprint of thousands of resources. However, with Azure being made generally available firmwide, the system needed to scale to **track several orders of magnitude more resources over multiple tenants**. I redesigned it to utilize a **change-based feed**, capturing and propagating only incremental updates—emitting structured create, update, and delete events. This transformation significantly improved efficiency, enabled the inventory to be captured in a timely manner, and ensured that downstream consumers received timely and accurate information.
- Implemented **chaos engineering** for the firm's Azure infrastructure to ensure resiliency and compliance with SLO targets. Developed Proof of Concepts (POCs) for testing PaaS services, overcoming significant challenges related to restricted access. Created a comprehensive chaos testing plan that covered 85% of Azure services utilized by the firm. Successfully conducted **chaos game days** in production environments, collaborating with SRE, development, and other key teams. Identified and resolved over 20 vulnerabilities, significantly enhancing system reliability and reducing incident response time to allow services to meet RTO targets.
- Designed and developed an Azure Governance Dashboard to **centralize and manage policy and role-related information for all Azure services across the firm**. The dashboard supports compliance and cloud platform teams, by integrating Azure constructs (e.g., Policies, Role Definitions) with internal risk management controls, reducing audit preparation time by 40% and enhancing overall governance efficiency.

JP Morgan Chase & Co.

June 2022 – Aug 2022

Summer Analyst Intern – Software Engineer Program

- Deployed to production a custom forwarding service for an API gateway for the main JPMC compliance site used in all regions. Fixed some existing bugs in the system and added documentation and tests
- Implemented a custom Named Entity Recognition model pipeline to identify customer complaints, comprising the identification and labelling of custom tokens, pre-processing of labelled training data, training of BERT model and post-processing of model output for better results. Results were comparable or exceeded existing AWS Comprehend model trained for the same task by the department.
- Worked closely with senior management to communicate findings and provided advice and mentorship to fellow interns throughout both projects

Cyberlife.ai

Aug 2022 – Sept 2022

- Built eye-chart functionality for a mobile application made by medical startup's working with NUH (National University Hospital), comprising of real-time user distance tracking from the chart and voice transcription, for evaluating a user's eyesight in partnership with doctors in the company.
- Built with Flutter, using native iOS (Swift and Objective C) and Android code (Kotlin).

Oversea-Chinese Banking Corporation

July 2021 – Dec 2021

Group Operations and Technology – Consumer Loan Operations

- Provided with opportunity to lead upgrading of an in-department File Tracking System built in Django including new functionality for tracking and reporting and changes to the User Interface.
- Managed to deliver all initial user-specified functionality within 3 weeks of taking over project, allowing for users to revise the upgrading project to take on a much larger scope. With the additional bandwidth, I implemented a test-suite covering 75% of the 15000LOC codebase, fixing security vulnerabilities and adding documentation.
- Performed data analysis and visualization on department workflow and sales data.

Group Customer Analytics and Decisioning

- Built Network-Visualization Tool to display and analyse graph networks using Ant Mobile's G6 framework, providing more features and functionality than other existing open-source tool currently available
- Worked on a Feature Selection project to enhance exiting dashboards and risk-identification models.
- Employed various machine-learning models to identify fraud in banking via the identification of anomalous data. Presented findings with colleagues to implement into risk-identification models deployed by the Company.

Ideas Ink. School (Buona Vista)

Aug 2020 – March 2021

Web Development, Full Stack Developer (Contracted)

- Planned and recommended a technical solution for the tuition company after discussions and training with owner and stakeholders to understand their needs.
- Developed and deployed a website for internal use to ramp-up tutors with Django, PythonAnywhere, and Google Cloud API with evaluation metrics and back-end analysis software to improve productivity of tutors at the school by improving their teaching and reduce the need of senior tutors to mentor new tutors, reducing headcount by 2.

Chainj

Dec 2020 – Feb 2021

Front-End Developer, App Developer

- Outlined software solution and implemented prototype for entrepreneur client interested in building a proof-of-concept distributed blockchain music distribution platform after discussions to understand his needs.

CERTIFICATIONS

Microsoft Certified: Azure Developer Associate – Completed Aug 2024

AWS Certified Developer (DVA-C01) – Completed Feb 2023

AWS Certified Cloud Practitioner (CLF-C01) – Completed Nov 2022

HashiCorp Terraform Associate (003) – Completed Aug 2023

ACADEMIC PROJECTS

Nanyang Technological University, Singapore

Jan 2021 – March 2021

Software Engineering Project – CarparkFinder

- Oversaw and managed student team throughout lifecycle of software development for this project and brought entire team of 6 members behind shared vision.
- Developed a website allowing drivers to easily find carpark throughout Singapore with Speech-to-Text and Text-to-Speech functionality

CO-CURRICULAR ACTIVITIES

Facebook Above and Beyond Computer Science (2021 Cohort)

Early 2021

- Learned from L2 Facebook Software engineers about coding best practices and various algorithms

JP Morgan Chase & Co – Code for Good

Middle 2021

- Exciting opportunity to use tech skills to help Non-Governmental Organizations (NGOs) solve their most pressing problems.
- In 24 hours, worked with ad-hoc team to create most complete solution out of all the competing teams, involving a low-code redesign with complete mocks of NGO website, together with a complete payment solution to solve targeted problems brought up by the NGO

Shopee Hackathon

Late 2020

- Participated in challenges that included computer vision, image recognition and data analytics.
- Achieved 80+ % accuracy on trained image classification model.

Chief Publicity and Publications, Hall of Residence Community Outreach

Jan 2020 – Aug 2020

- Led a team of 6 in charge of the promotional arm of Hall's Community Involvement Program
- Produced and distributed promotional materials to raise awareness/ funds for outreach programs.
- Organised several photoshoots for members for publicity/ picture identities.

TECHNICAL SKILLS

Languages: Python, JavaScript, Kotlin, Java, SQL**Frameworks:** ReactJS, Django, Flutter, Spring Boot**Cloud & DevOps:** Azure, AWS, Terraform, Kubernetes
