

MA NINGZHI

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Versatile Software Engineer with expertise in both low-code platforms like OutSystems and traditional programming using Java and Python. Skilled in designing and deploying scalable APIs, migrating complex systems, and optimizing backend performance. Passionate about solving technical challenges, driving innovation, and building reliable, efficient solutions. Seeking to contribute to impactful projects that leverage modern technologies and deliver meaningful results.

EXPERIENCES

NARWHAL FINANCIAL SYSTEMS PTE. LTD. (Narfin, a commercial venture spinoff from SMU) **May 2023 – Current**

Narfin Core Banking System, Software Engineer Intern

- Led the migration of the Narfin Core Banking System from TIBCO Business Work, Java, and MySQL to OutSystems, deploying 85 REST APIs. Reduced annual maintenance costs by 50%.
- Designed and deployed 90+ new APIs and optimized 50+ APIs for the core banking system, covering functionalities like transactions, authentication, and system management.
- Migrated and enhanced the Administrator and the API Demo apps from a wide range of tech stacks (e.g., Vue.js, Vanilla JavaScript, JSP, MySQL, AWS), integrating new features and platform-level enhancements.
- Guided 2 teams in developing the Retail Internet Banking and Teller app, ensuring robust, user-centric solutions.
- Independently migrated a legacy General Ledger System from JavaScript, JSP, and MySQL to a service-oriented architecture, implementing custom concurrency and load-balancing mechanisms to support multi-tenancy and high-volume, real-time financial data posting.
- Supported the system in courses like Digital Banking Architecture at SMU, contributing to hands-on learning experiences. Customized applications with new features and platform integration to meet diverse client needs.

GOVERNMENT TECHNOLOGY AGENCY

May 2022 - Aug 2022

Punggol Digital District, Software Engineer Intern

- Resolved the challenge of inconsistent sensor device ID formats by designing a mapping table to standardize device id, updated primary keys in Microsoft SQL databases with Java, impacting 36+ million rows across 48 tables.
- Collaborated in a scrum team to seamlessly propagate these changes from Backend to Frontend, from the Dev to Staging, then to the Production Environment.
- Automated user management with Red Hat Identity Management in RHEL using Shell Scripting.

RAFFLES INSTITUTION BOARDING, RAFFLES INSTITUTION

Oct 2021 – Current

Residential Assistant

- Accountable for managing the Raffles Boarding Program and overseeing the well-being of over 60 boarders in the block.
- Oversaw welfare initiatives as the overall in-charge at RI Boarding, managing planning, budgeting, procurement, and setup for student and staff birthday celebrations to foster bonding and create a cohesive “home away from home” environment.
- Received MOE Inter-Hostel Competition 2024 Heart Award for the years of dedication and excellence in service.

SINGAPORE ARMED FORCES

May 2019 – May 2021

Lieutenant, Motorised Transport Officer, Platoon Commander

Jun 2020 – May 2021

- Recipient of the Sword of Merit (awarded to the top 10% of the cohort).
- Led a platoon of over 40 Transport Operators to provide key logistical support to multi units' training and operations.
- Conducted battalion and company level training to foster and maintain servicemen's operation readiness.

SKILLS

Professional Certification: [AWS Certified Solutions Architect - Associate](#), [Google IT Support Specialisation](#), [Google Project Management Specialisation](#), [Oracle Java Certified Foundations Associate](#), OutSystem Associate Reactive Developer O11

Programming Languages: Python, Java (Spring Boot), Go, SQL, MongoDB, Shell Scripting, HTML, JavaScript, CSS

Softwares: Git, Jira, Docker, Kubernetes, RabbitMQ, Microsoft Office, [Salesforce Superbadges](#)

Languages: Effectively bilingual in English (A for “A” Level General Paper) and Chinese (Native Speaker)

EDUCATION

SINGAPORE MANAGEMENT UNIVERSITY (SMU)

Bachelor of Science in Information Systems - Magna Cum Laude

Aug 2018 – Dec 2023

Master of Science in Computing - Software & Cyber-Physical Systems Track (cGPA: 3.79)

Jan 2024 – Dec 2024