

Koh Ding Yuan

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Profile

Dynamic Senior Software Engineer with over three years of experience in optimizing software performance and managing intricate IT projects. Expertise in automation tool development and data management facilitates innovative solutions that significantly enhance operational efficiency. Proven ability to streamline workflows and elevate team collaboration through strong communication and technical skills. Committed to leveraging analytical capabilities to drive impactful software engineering initiatives and deliver exceptional results.

Professional Experience

Senior Software Engineer, Capgemini Singapore Pte. Ltd., Singapore Apr 2025 — Present

- Developed **automation tools** using **Java (Jira API)** and **Python**, enabling bulk updates of hundreds of Jira records within minutes, reducing manual effort from several hours to under 10 minutes, improving process efficiency by **over 90%**.
- Contributed to a pipeline utilizing **Large Language Models (LLMs)** for **automated test case generation**, accelerating QA workflows and enhancing AI-driven testing capabilities.
- Achieved **Tricentis Tosca Consultant Certification**, demonstrating expertise in modern test automation tools.
- Collaborated with **cross-functional teams** to align objectives and optimize development processes for timely project delivery.
- Conducted **code reviews** to maintain best practices, improve code quality, and mentor junior developers.

Research Assistant, Singapore Institute of Technology, Singapore Oct 2021 — Jan 2023

- Conducted **quantitative data analysis** and developed an **Excel-based data capture system**, improving data organization and streamlining team workflows.
- Project: Blended Design and Critical Thinking** — Supported a **SIT ALIGN-funded research initiative** through **lesson observations** and **literature reviews**, contributing insights that informed project design and critical thinking frameworks.

Internships

Project Management Intern, ASM International N.V., Singapore Aug 2023 — Apr 2024

- Supported the management of multiple **IT projects**, improving project execution efficiency and streamlining administrative workflows.
- Project Panaya**: Led the **onboarding and implementation** of *Panaya*, a **web-based SAP test management and automation solution**, replacing the company's Excel-based tracking system. Developed comprehensive **user documentation** and coordinated with stakeholders to ensure smooth adoption and successful rollout.
- Project Variant Configurator (VC) Phase 2**: Assisted in **System Integration Testing (SIT)**, **User Acceptance Testing (UAT)**, and **Go-Live** activities; coordinated onsite efforts to ensure seamless execution.
- Project TRANS4M**: Managed **administrative and logistics support**, enhancing coordination and overall project efficiency.

Software Development Intern, KEYfields Pte. Ltd., Singapore Apr 2018 — Aug 2018

- Conducted research and development using **C#, ASP.NET, and MS SQL**, improving overall application performance and user experience.
- Designed and implemented a **route optimization algorithm** leveraging the **Google Maps API** to solve the **Traveling Salesman Problem**, increasing route-planning efficiency by **over 70%**.
- Contributed to the **National Trade Platform (NTP)** project in collaboration with **Singapore Customs** and **Accenture**, developing **API functions** and **data transformation processes** to enhance system integration and streamline trade operations.
- Built a **Backup Checker** console tool to monitor backup files and detect anomalies, strengthening **data security and system reliability**.
- Detected and analyzed **SQL Server brute-force attacks**, producing mitigation recommendations that improved **system resilience and security posture**.

National Service

Store Incharge, Singapore Dec 2019 — Aug 2021

- Managed **unit procurement finances** and oversaw **building operations**, improving operational efficiency and fostering effective communication with contractors.
- Assisted in **annual budget planning** by analyzing three years of expense data, enhancing financial forecasting and resource allocation.
- Supervised **infrastructural improvement projects** and optimized tracking using advanced **Excel tools**, resulting in more efficient project management and stronger vendor relationships.

Education

Bachelor of Science with Honors in Computing Science, Singapore 2021 — 2024
Singapore Institute of Technology

Three-year direct honors degree program jointly offered by Singapore Institute of Technology (SIT) and the University of Glasgow (UofG).

Diploma in Information Technology, Singapore 2016 — 2019
Singapore Polytechnic

Technical Skills

Professional Skills	Communication, Problem Solving, Critical Thinking, Time Management, Analytical Skills, Leadership
Technical Leadership and Project Management	Process Documentation, Cross-Functional Communication, Project Coordination, Technical Requirements Gathering, Team Collaboration, Planning, Budgeting, Forecasting, Vendor Coordination, Relationship Management
Software Engineering	Full-Stack Development, Web Development, Mobile Development, Microservices, Cloud-Native Architecture, Object-Oriented Design (OOP, MVC), .NET (Core, ASP.NET, MVC, Web API), Python (Flask, Django), Java, Kotlin, Scala, JavaScript (React, Node.js), Dart (Flutter)
Cloud and Data Systems	Microsoft Azure, Amazon Web Services (AWS), Google Cloud Platform (GCP), Kubernetes, SQL (T-SQL, MySQL, Microsoft SQL Server), MongoDB, Data Analysis, Data Migration, Business Intelligence (Power BI)