

# Gan Sang Wei, Wayne

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Singaporean

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GitHub: <https://github.com/xisingazix>

Portfolio site: <https://xisingazix.github.io>

## Career Summary

I bring over 10 years of transferable experience in analytical work, structured problem solving and process optimization, gain from my background in laboratory operations and military service. I am experienced in leading cross-functional teams, coordinating stakeholders and driving outcomes under time-sensitive conditions. I am detail-oriented, methodical and adaptable, with a strong focus on data integrity and workflow efficiency. I am now eager to apply these strengths to build reliable, user-focused web applications and contribute effectively as a developer in a growing tech environment.

## Technical Skills

**Client-side Languages:** HTML5, CSS3, JavaScript (ES6+)

**Server-Side Languages:** Java, Python

**Database:** MySQL, SQL, Database Schema Design

**Tools & Version Control:** Git, GitHub, IntelliJ IDEA, Visual Studio Code, Postman

**Testing & Debugging:** Unit Testing (JUnit, PyTest), Debugging

**Frameworks:** React.js, Bootstrap, Spring Boot (Maven), Node.js.

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## Professional Development

### Jr Full Stack Developer,

Generation Singapore (in partnership with Microsoft & Temasek Poly) | 2025–Present

- Gained extensive hands-on experience across the entire development stack, MySQL, Node.js and React.js

### Capstone Project, link:

<https://github.com/xisingazix/team3capstone.stayahead>

<https://github.com/xisingazix/capstone.stayahead.db>

- Developed a full-stack financial education portal using Java Spring boot, JavaScript, and MySQL to promote scam awareness
- Engineered RESTful APIs with Spring Security for secure authentication and authorization, implementing data validation and JWT-based sessions
- Built a responsive front-end with HTML/CSS and interactive components featuring client-side form validation
- Designed database schema with proper entity mappings and constraints, tested endpoints using Postman
- Applied Version control and progress management using GitHub

## **Work Experiences**

### **Senior Lab Analyst, Saybolt Singapore |**

**2023–2025**

- Applied systematic debugging and calibration practices to maintain high equipment reliability and ensure data integrity at approximately 99.5% accuracy.
- Managed data entry and quality assurance through a Laboratory Information Management System (LIMS), enforcing strict data validation and compliance protocols parallel to database management and secure coding practices.
- Utilized a methodical approach to test, troubleshoot and improve laboratory processes, demonstrating transferable problem-solving skills relevant to QA and code debugging

### **Lab Analyst, CCIC Singapore |**

**2020–2023**

- Optimized a complex hydrocarbon distillation process, applying data analysis to improve product yield by 4%, showcasing direct performance optimization and process improvement skills.
- Identified procedural gaps through documentation and root-cause reviews, reducing operational discrepancies and improving team guidance.
- Collaborated with lab teams to streamline workflows and increase throughput efficiency

### **Ammunition Specialist, Singapore Armed Forces |**

**2012–2020**

- Coordinated systems and resources across 86 facilities, strengthening structured problem-solving and dependency management.
- Led teams of up to 40 personnel and streamlined operations through data analysis, achieving a 25 percent cost reduction.

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## **Education**

### **Diploma in Chemical Engineering – Temasek Polytechnic |**

**2009–2012**

Specialization in Petroleum Processes

Trained and certified at Chemical Process Technology Centre (CPTC)

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