

Yong Zhi Yuan

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Summary

- Software Engineer with 6 years of experience building web applications & 4 years of experience co-leading a team. Tools & techniques used: ASP.NET Core 9, EF Core 9, Blazor, Azure, OAuth 2, Integration & Unit Tests, GitHub Actions, Microservices, Clean & Secure Code.
- Enjoy reading on technical topics and keeping myself up-to-date with the technologies I'm using. Been in the scene long enough to know what's over-hyped and what's legitimate. Also sometimes tinkering with hardware e.g. Arduino & Raspberry Pi.
- Love solving real problems and collaborating with others to make great solutions.
- Deliberately stepped away from full-time employment twice to focus on self-initiated projects.

Work Experience

Career Break

Singapore

PERSONAL GOAL PURSUIT

Nov 2024 - Present

- Solo-developed a web application through the entire Software Development Life Cycle for a non-profit organization, now in production.
- Gathered user requirements using Domain Storytelling techniques.
- Developed the software in iterations using Azure, Blazor WebAssembly with FluentUI, ASP.NET Core 9, EF Core 9, Cosmos DB, Auth0, ReBAC, Dev Containers, and GitHub Actions. ~5kLoC.

Illumina

Singapore

SOFTWARE ENGINEER

Jun 2024 - Nov 2024

- Loved working with my tech lead who empowered me to take initiatives and have a bias for action. Some of these initiatives were adopted and I subsequently documented these on my blog: [Integration Tests](#), [Vertical-Slice Architecture](#), [OAuth 2](#) and answers on StackOverflow on [JWT](#) & [PAT](#).
- Collaborated with cross-regional stakeholders in a remote & asynchronous work environment through writing and reviewing multiple Request for Comments (RFCs) and design documentation to develop new features, applying knowledge of ASP.NET Core 8, EF Core 8, RabbitMQ with MassTransit, OAuth 2, GitHub Actions and Microservices (Docker, Kubernetes and Helm). Also troubleshooted and resolved software defects with OpenTelemetry.
- Proposed short-term security mitigations and long-term architecture re-design pertaining to how OAuth 2 is used in the existing codebase. Presented findings to an Associate Director & a Principal Engineer.
- Advocated and piloted initiatives towards code maintainability & developers' productivity by writing code using Vertical-Slice Architecture. Also re-designed how tests are written, resulting in drastically reduced test runtime and enabled developers to own their tests instead of handing the tests to a test team.
- Highlighted the team's technical achievements by creating the team's blog and writing multiple articles to showcase our work, and presenting to the wider team in multiple knowledge sharing sessions.
- Mentored junior engineers by conducting code reviews and pairing with them for multiple tasks. Also inspired them to do better work, sometimes through hard conversations like performance and behavior related conversations.
- Re-engineered the format for interviewing candidates and job description to increase the chances of having candidates who are a better fit for our team.

Career Break

Singapore

PERSONAL GOAL PURSUIT

Jul 2020 - Feb 2021

- Independently learnt and applied knowledge of Azure, Blazor WebAssembly, ASP.NET Core & EF Core to create a Web Application for me and my partner.
- Participated in a hackathon and led a team of 2 Software Engineers to gather User Requirements, design UI and explore technologies such as Optical Character Recognition and Facial Recognition.

ST Engineering

Singapore

SOFTWARE ENGINEER

Dec 2018 - Jul 2020

- Developed new product features using ASP.NET Core, EF Core, SignalR and SQL.
- Provided technical guidance for a team of 4 developers by performing code reviews and suggested improvements and best practices to follow.
- Identified, initiated and implemented easy wins for the team through automation.
- Published an [article on Async / Await](#) that received over 33k post views and over 430 reactions to date.

NUS

Singapore

TUTOR - PROGRAMMING METHODOLOGY

Aug 2016 - Nov 2016

- Led a group of 12 students in discussions to familiarize with fundamental concepts of problem-solving using C.
- Achieved an Overall Effectiveness Score of 4.40 (0.23 higher than the faculty average in School of Computing).

Education

National University of Singapore (NUS)

BACHELOR OF COMPUTING (HONOURS) IN COMPUTER SCIENCE

FOCUS AREAS: SOFTWARE ENGINEERING, COMPUTER SECURITY

Singapore

Aug. 2015 - Dec. 2018

- CAP: 4.45 / 5
- Achieved A+ grade for the following modules: Data Structures & Algorithms, Design & Analysis of Algorithms, Software Engineering, Thematic Systems Project