

Yong Zhi Yuan

☎ (+65) 91292616 | ✉ zhiyuan_1994@yahoo.com.sg

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 & C#, EF Core 9 & SQL & NoSQL, Blazor, Azure, OAuth 2 & OIDC, Integration & Unit Tests, GitHub Actions, Microservices (Docker, Kubernetes and Helm), 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 subsequently documented on my blog: [Integration Tests](#), [Vertical-Slice Architecture](#), [OAuth 2](#) and answers on StackOverflow on [JSON Web Token \(JWT\)](#) & [Personal Access Token](#).
- Collaborated with cross-regional stakeholders in a remote and asynchronous work environment. Applied expertise in ASP.NET Core 8, EF Core 8, RabbitMQ with MassTransit, OAuth 2 & OIDC, GitHub Actions, and Microservices (Docker, Kubernetes, and Helm). Additionally, troubleshoot and resolved software defects using OpenTelemetry & Grafana, while also writing and reviewing multiple design and architecture documents.
- Proposed short-term security mitigations and long-term architectural redesign regarding the use of OAuth 2 & OIDC in the existing codebase. Presented findings to an Associate Director and 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, drastically reducing test runtime and enabled developers to write their own tests.
- Showcased the team's technical achievements by creating a blog, authoring multiple articles to highlight our work, and delivering presentations in various knowledge-sharing sessions.
- Mentored junior engineers by conducting code & design 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 a successful interview.

Career Break

Singapore

PERSONAL GOAL PURSUIT

Jul 2020 - Feb 2021

- Independently learnt and applied knowledge of Azure, Entra ID, Blazor WebAssembly, ASP.NET Core & EF Core to create a web application.
- 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.
- 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)

Singapore

BACHELOR OF COMPUTING (HONOURS) IN COMPUTER SCIENCE

Aug. 2015 - Dec. 2018

- CAP: 4.45 / 5
- Achieved A+ grade for Data Structures & Algorithms and Software Engineering modules.