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 & 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*
SENIOR SOFTWARE ENGINEER   *Feb 2021 - 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, troubleshot 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.