Pramoch Viriyathomrongul

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SUMMARY

Software Engineer with over 7 years of experience in web development and extended reality. 1 year of leading engineering teams at a major tech company, delivering reliable software solutions while executing projects from concept to completion.

EDUCATION

- **Bauhaus Universität Weimar** — Weimar, Germany
  Master of Science in Computer Science for Digital Media; GPA: 1.50 (∼Good, German scale) — Oct 2021 - Apr 2025

- **Mahidol University** — Bangkok, Thailand
  Bachelor of Science in Information and Communication Technology; GPA: 3.00 — Jun 2011 - May 2015

EXPERIENCE

- **Independent XR Developer** — Leipzig, Germany
  Career Transition — Mar 2022 - Present

  - **MR Project**: Developed and evaluated a co-located mixed reality onboarding system that enables interactive see-through tutorials to improve VR interaction retention for novice users and seamless multi-user VR transitions from a shared physical space — featuring in an IEEE conference publication and an application available on Meta Horizon Store. Integrated technologies including Unity Netcode, Spatial Anchor API, Meta Mixed Reality Toolkit, Meta XR Interaction SDK, Meta XR Platform SDK, Meta XR Simulator, and ParrelSync.

  - **Social VR Project**: Developed a social virtual reality application, NPR Gallery, that engages users in exploring non-photorealistic shading techniques in a real-time 3D environment. The application features exhibit-style information points where users learn about various NPR effects and interactively apply these techniques to virtual objects. It was showcased at the university's annual event, offering an educational and entertaining experience for visitors. Built using Photon PUN, XR Interaction Toolkit, and Unity Shader Lab.

  - **Multi-User VR Project**: Developed a multi-user virtual reality application enabling users to explore virtual worlds either collectively or individually through a multi-ray jumping and positioning technique. This IEEE research inspired approach features a navigator-controlled group formation mechanism designed to reduce cognitive load and simulator sickness.

  - **VR Training Simulator**: Prototyped a VR based bomb assembly training simulator in 2015, leveraging Leap Motion for realistic hand interactions and Oculus Rift DK2 for immersive visualization. Evaluated with human subjects to demonstrate its potential safety benefits in military training procedures while reducing training costs and risks; developed in collaboration with the Defense Technology Institute under the Ministry of Defense of Thailand.

  - Study foundational principles of VR interaction and XR development skills through various assignments and tutorials.

  - Stay up-to-date with XR industry trends and best software practices.

- **Senior Software Engineer** — Bangkok, Thailand
  Agoda — Jul 2018 - Sep 2021

  - **.NET Core Migration**: Led a team of 7–10 engineers in migrating a web application from old .NET Framework to .NET Core, enabling Linux server deployment. This migration yielded operational cost savings of $1–2 million, reduced server-side latency by approximately 250ms, and cut client-side load time by about 500ms at the 90th percentile.

  - **GraphQL Integration**: Spearheaded a team of 7–10 engineers in integrating GraphQL into the web application, achieving a 40% reduction in pull requests across both front-end and back-end repositories and accelerating market delivery timelines.

  - **React Architecture Rebuild**: Re-engineered the website from a server-side application to a component-based React architecture, reducing server-side load times from over 1000ms to 200ms and client-side page load times from over 8000ms to 2200ms at the 90th percentile.

- - **TypeScript Adoption**: Transitioned the client-side codebase from JavaScript to TypeScript, decreasing production bugs through static type checking and improving long-term maintainability.
  - **Gateway PoC**: Led a proof of concept comparing Node + Apollo and Scala + Sangria frameworks, guiding the front-end department in selecting a new gateway service.
  - Developed real-time graphs, metrics, alarms, and monitoring dashboards to display live system status on production servers.
  - Managed responsibilities across 2 Scrum teams concurrently, ensuring efficiency and meeting the project timelines.
  - Actively participated in recruitment and mentorship programs, contributing to team growth and knowledge sharing.

- **Software Engineer** Bangkok, Thailand
  Agoda *Jun 2015 - Jun 2018*
  - **VB to C# Overhaul**: Transitioned server-side code from VB to C#, dramatically reducing web service response times from seconds to milliseconds and improving integration with .NET libraries.
  - Led the development of strict API coding standards across both front-end and back-end teams, which reduced bugs, minimized technical debt, and improved overall code quality.
  - Integrated a microservices architecture into the web application, enhancing performance, reducing frontend code complexity, and clarifying system responsibilities.
  - Collaborated with product and technical teams to deliver high-quality software solutions, consistently meet KPIs.
  - Implemented best practices such as A/B testing, code quality assurance, and the design of scalable architectures.
  - Provided on-call support to ensure system reliability and uptime.

- **Software Developer Internship** Chemnitz, Germany
  Technische Universität Chemnitz *Jun 2014 - Aug 2014*
  - **Embedded System**: Developed an application for a hardware-in-the-loop system using the Digilent Electronics Explorer board, supporting the teaching of digital systems fundamentals and rapid prototyping techniques using C and Java.

PROGRAMMING SKILLS

- **Language**: C#, Java, TypeScript, JavaScript, SQL

- **XR Stack**: Unity, Unity Netcode, Meta XR SDKs, XR Interaction Toolkit, Photon Engine, Git

- **Web Stack**: .NET, React, Vite, GraphQL, Elasticsearch, MSSQL, SQLite, Bootstrap, Sass, jQuery, NUnit, xUnit, Jest, Mocha, Selenium, Kibana, Grafana

LANGUAGES

- **English**: Professional working proficiency
- **Thai**: Native proficiency