

Ze Yan Liow

Software Engineer

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PROFILE

Experienced Software Engineer, well-versed in full-stack technologies and eager to stay at the forefront of tech trends. Skilled in architecting distributed systems and implementing cloud computing solutions that enhance application performance and security. Eager to bring analytical rigour and technical expertise to a vibrant team poised to deliver advanced technology solutions.

AREAS OF EXPERTISE

Database System	Internet of Things	Web Development
Object-oriented Programming	Functional Programming	Cloud Solutions
Networking	Software Testing	Mobile App Development
Heuristic & Artificial Intelligence	Distributed Systems	Data Visualisation & Analytics
Agile Methodology	Computer Security	API Architecture

TECHNICAL PROFICIENCIES

Languages	Python, C++, Java, C, PHP, TypeScript, SQL, HTML, CSS, Kotlin, R, Haskell.
Frameworks:	React.js, Node.js, Laravel, Yii, jQuery, Bootstrap, Tailwind CSS
Databases:	MySQL, PostgreSQL, MongoDB
Developer Tools:	Linux, Git, AWS, Figma, Postman, SwaggerHub
Certification	AWS Certified Cloud Practitioner

PROFESSIONAL EXPERIENCES

Software Engineer

OCT 2021 – OCT 2023

Climote – Dundalk, Co. Louth, Ireland

Led the development of advanced remote heating control applications, significantly enhancing operational efficiency and user engagement. Collaborated with the R&D team to advance data visualisation capabilities, playing a key role in the algorithm design that led to a 20% energy savings in system operations. Demonstrated a fervent commitment to excellence by refining software functionality and architecting robust cloud solutions that fortified technological resilience.

- Engineered remote heating control apps with Yii and Laravel, boosting performance and user experience.
- Implemented status monitor, speeding issue detection by 95% and maintaining Climote system health.
- Collaborated on launching data visualisation tools, enhancing analytics for 2000+ smart immersion events.
- Devised robust API JSON structure, championed intuitive UI design, and created comprehensive app documentation.
- Enhanced jQuery SPA functionality with strategic upgrades and thorough bug remediation.

Software Engineer Intern

MAR 2020 – MAY 2020

Flogas – Drogheda, Co. Louth, Ireland

Developed a mobile app prototype with Power Apps to monitor gas product and tank levels, revolutionising their tracking. Directed the project, significantly improving monitoring efficiency. Additionally, provided comprehensive IT support, effectively troubleshooting technical issues and assisting via the IT help desk.

- Catalysed 30% of digital transformation, boosting operational efficiency.
- Established secure VPN access for employees during COVID-19 to ensure uninterrupted business operations.

PROJECTS

Triptalk – *Personal Project*

- Enhanced user experience by designing responsive UI and leveraging Next.js and Tailwind CSS.
- Improved backend efficiency by managing data with MySQL.
- Optimised application delivery by executing applications on AWS EC2 and Elastic Beanstalk.
- Ensured data integrity and availability by configuring AWS RDS to achieve 99.9% uptime.
- Facilitated robust image and file management using AWS S3 for scalable storage solutions.
- Minimised risk of unauthorised access and strengthened application security through Laravel Passport.

Aquality 2.0 – *DkIT Final Year Project*

- Conducted data-driven environmental analysis in coordination with scientists.
- Enabled AI-powered data analysis via RESTful APIs for actionable insights.
- Crafted IoT system with advanced telemetry, transforming data collection from manual checks per year to automated updates every minute.
- Deployed Scrum methodologies, maintaining 95% project deliverables on schedule during COVID-19.
- Engineered innovative React Native app to monitor environmental conditions in real-time.

Doctor Book – *DkIT Third Year Project*

- Developed PHP-based GP appointment system with MVC architecture.
- Optimised user experience by ensuring custom role-specific access framework.
- Boosted system performance through optimisation of SQL queries and improving data processing efficiency.
- Ensured data privacy and compliance through execution of security measures.

ACTIVITIES

- Boosted the Archery Club's online engagement as Webmaster.
- Participated in Computing Machinery Association for tech talks and networking.
- Represented as an International Student Ambassador at DkIT to nurture diversity.
- Showcased teamwork in university badminton and archery teams.

EDUCATION

BSc (Hons) in Computing in Software Development

SEP 2017 – SEP 2021

Dundalk Institute of Technology - *Dundalk, Co. Louth, Ireland*
Second Class Honours, Grade 1

OTHERS

Skills:

- Quickly grasp new information and self-study diverse programming languages and technologies.
- Skilled in troubleshooting, critical thinking, and solving complex issues effectively.
- Proven ability to take initiative and excel under pressure, ensuring timely delivery on strict deadlines.

Languages:

English (Fluent), Mandarin (Native), Malay (Fluent), and Cantonese (Conversational).