

Arthur Lau

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Profile Summary

Results-driven Software Engineer with 5+ years of experience in **full-stack** development using **C# (.NET)**, **React**, **Next.js**, **Flutter**, and cloud platforms (**AWS**, **Azure**). **Adaptable** in delivering **scalable**, **secure**, and **high-performing** systems across domains such as vending automation, ERP, IoT, and gaming — leveraging diverse technologies as needed. Strong in **cross-functional communication** with PMs, analysts and engineers to yield business-aligned outcomes. Consistently pursue **technical craftsmanship** through **thoughtful architecture**, **team mentorship**, and maintainable code practices.

Experience

Software Engineer, IVM Tech Limited

Aug 2023 – Jun 2025

A leading vending machine company, ranked #2 in the domestic market, serving 2k+ users and 500k+ customers.

- Architected Hong Kong's first weighted smart vending machine system using **Next.js**, **Flutter**, and **MSSQL**, boosting annual profit by \$4M+.
- Integrated **Android POS** hardware (Octopus) with serial GPIO control by **Java** and **Kotlin**, reducing input errors by 80%.
- Built admin portal on traditional machines for 100k+ users managing \$1M+ monthly revenue by **NestJS** and **MSSQL**, **EJS**, **HTML**, **CSS** and **jQuery**.
- Automated **CI/CD** deployments on **AWS** and **Azure** by **GitHub Actions** and **WSL**, minimizing deployment time by 50%.
- Designed specifications across **design** and **operation** teams with 10+ smart fridge partners ensuring consistent interoperability.
- Led ERP modernization by migrating to **.NET** microservices with **MSSQL**, **MQTT**, **Redis**, **AngularJS**, reducing latency by 50%.

Software Engineer, Makeitfun Studio

Jul 2022 – Aug 2023

A digital creative studio specializing in providing fun experiences via various gamification forms with an average of 100k+ active users.

- Constructed **Responsive SEO**-optimized **React + Next.js** event websites serving 500k+ users, boosting reach by 50%.
- Designed scalable db schemas and business logic for 10+ projects via **ExpressJS**, **MongoDB**, **Postgres**, **docker** and **Kubernetes**.
- Delivered a POC on **Mozilla Hubs**, extending the **open-source metaverse** server with a real-time voting system (**React**, **Elixir**, **WebRTC**, **ExpressJS**).
- Programmed an **AR Flutter** app for a Disney-affiliated Studio using **MediaPipe** and **Vuforia** in **Unity** and **C#** with 70k+ served customers.

Software Engineer, Flexsystem Limited

Jun 2021 – Jul 2022

An international provider of enterprise management SaaS solutions for 2000+ clients in 30+ countries.

- Tailor-made an **ERP** system modules (sales, inventory, procurement) for International client with over 2M+ users using **React** and **C#** and **ISAM**.
- Created **RPA** by **UIPath** for **stress** and **unit** tests with **Jest** and **Vitest**, cutting repetitive task execution time by 50%.

Software Engineer, Excohk Limited

Oct 2020 – Jun 2021

A start-up cultural media collective that bridges art, storytelling, and creative branding for 50+ institutions and communities.

- Developed an **OAuth2 booking** system from **React Native**, **Expo**, **Java EE**, enabling personalized event experiences on 50+ large-scale cultural events.
- Implemented a **temporal storage solution** via **DynamoDB** and **Firebase**, improving responsiveness and visitor interaction reliability.

Full Stack Engineer, East Technology Limited

Jul 2020 – Sep 2020

An award winning media provider delivering content display, e-commerce solution for 180+ brands

- Implemented UX on SPA website by **PHP**, **jQuery**, and **JavaScript** across 20+ business and educational domains.
- Developed a lightweight **CMS** using **PHP**, **Apache**, and **phpMyAdmin**, enabling customized page updates for non-technical users.

Backend Developer, Yunfeng Financial Group Limited

Jun 2019 – Jul 2019

A leading financial company across Asia market cooperating with 1000+ of global partners

- Programmed and Unit-tested **Flask** Server API of Youyu Smart Trade App using **Python** scripts towards **MySQL**.

Projects

[Arkham Analysis](#) - Building a data-analytic game assistant for Arkham Horror LCG with 1000+ cards by **FastAPI**, **PostgreSQL**, and **React**.

[Reals](#) - Coded an AI-powered **Flutter** app for custom dating itineraries with **ChatGPT** and **FastAPI**, providing click-to-plan experience.

[Mozilla Hubs](#) - Integrated open source 3D chess with Hackweek Avatar Maker and observer mode using **React**, **Elixir**, **WebRTC**, **ExpressJS**

[Object Grabbing](#) - Created a 3 level object grabbing puzzle game from gesture recognition using mediapipe on **C#** and **unity**.

Skills

Programming Languages: **C#**, **JavaScript**, **TypeScript**, **Java**, **Python**, **Dart**, **Kotlin**, **PHP**, **Erlang**, **Elixir**

Back-end Development: **.NET Core**, **ASP.NET**, **Node.js**, **Express.js**, **RESTful APIs**, **Django**, **Flask**, **FastAPI**, **Spring Boot**, **GraphQL**, **Strapi**

Front-end Development: **React**, **Next.js**, **Flutter**, **NestJS**, **Angular**, **Tailwind CSS**, **Material-UI (MUI)**, **Bootstrap**, **Vue**, **Solid**,

Database Management: **PostgreSQL**, **MSSQL**, **SQLite**, **MongoDB**, **Redis**, **MySQL**, **DynamoDB**, **Firebase**

DevOps & Cloud Platforms: **Git**, **GitHub**, **GitLab**, **TortoiseSVN**, **Docker**, **Kubernetes**, **Jenkins**, **UIPath**, **Azure**, **AWS**, **Cloudflare**, **GCP**.

Certificate

AWS Certified Solution Architect (In Progress)

Education

Chinese University of Hong Kong – Bachelor's Degree in Computer Science

Jun 2021

Hong Kong Community College – Associate's Degree in Information Technology

June 2017