Ian Qiu

University of Tasmania
Bachelor(Hons) of Computing

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1. Career Objective

Experienced SDE passionate about cutting-edge technology and agile development. Proficient in TypeScript, C#, PHP, and cloud platforms like Azure and AWS. Focused on growing as a T-shaped professional, blending deep expertise in software engineering with broad knowledge across diverse technologies, DevOps and products.

2. Skills

Programming Languages: JavaScript (ES5-2021), TypeScript, C#, PHP, C++, Python
Back-End Development: .NET Core, Node.js, Laravel, Yii, Express.js, Next.js
Front-End Development: HTML5, CSS3, SCSS, Angular, React, AngularJS, jQuery
Databases: MySQL, PostgreSQL, SQL Server, MongoDB
Cloud Platforms: Azure (App Service), Vercel, AWS (EC2), MongoDB Atlas
CI/CD Tools: GitHub, GitLab, Jira, Azure DevOps Server

3. Projects

Assessment Master(Link) | .Net Core, CSS, PHP, TypeScript, Angular, Chart.js, D3.js, Blockly, Node.js

Assessment Master is a flexible online platform used globally by governments, universities, and schools for remote testing, assessing numeracy, literacy, ICT skills and so on.

ICILS 2023 (Link) | PHP, TypeScript, Angular, D3.js, Blockly, Node.js, jQuery

The International Association for the Evaluation of Educational Achievement (IEA) is the international study center and coordinating body for ICILS 2023

PISA 2023(Link) | Chart.js, Blockly, PHP, TypeScript, Reactjs

Created by the Organisation for Economic Co-operation and Development (OECD), PISA tests the skills and knowledge of 15-year-old students in mathematics, reading and science.

ICAEW E-Marking (Link) | Angular,TypeScript Chart.js, D3.js, Blockly, Node.js, SpreadJS

The Institute of Chartered Accountants in England and Wales (ICAEW) adopted an assessment solution reflecting professional accounting conditions while maintaining exam integrity.

LetourCycles E-commerce Website (Link) | Shopify, CSS, JavaScript, CSS, Google Ads/Analytics

Letour Cycles is an Australian-based e-commerce website specializing in premium cycling gear, equipment, and accessories.

4. Experience

RM PLC Australia (LSE Listed, Code: *RM..UK*) —— Software Engineer (Oct 2021 - Present)

- **Full-Stack SaaS Development**: Expertise in database retrieval, API design, HTTP request handling, and UI/UX development, with SQL optimization for efficient responses.
- **System Migration**: Contributed to transitioning a PHP monolithic system to a C# and SQL Server microservices architecture, improving scalability and performance.
- **Accessibility Compliance**: Enhanced UI/UX to meet WCAG 2.0–2.2 standards, customizing third-party libraries as needed.
- **Agile & CI/CD**: Managed sprints via Jira (stories, tasks, bugs) and utilized Azure DevOps for deployments, version control, and CI/CD pipelines.
- **Data Processing Algorithms**: Designed algorithms to process raw data (e.g., student answers) and auto-generate scoring reports.
- **Client Collaboration**: Translated client requirements into actionable tasks, ensured WCAG-aligned designs, and guided projects from development through QA to production.

Key Achievements

- **Lead Developer - PISA2025 (Programme for International Student Assessment)**:
  - Stepped up as project lead after the departure of the project lead.
  - Successfully took on **Project Manager, Business Analyst, and Developer roles**.
  - Independently developed two key modules while serving as the primary point of contact with **external stakeholders, including OECD-Europe,** to negotiate requirements, deliver progress updates, and establish project timelines.
- **Lead Angular Framework and Node.js Update**:
  - Spearheaded the update of **Angular from version 14 to 18** and **Node.js from version 14 to 18** for RM Australia's flagship SaaS platform, **Assessment Master** (https://content.rmresults.com/assessment-master-brochure) .
  - Took ownership of the Angular Development as a lead, establishing best practices to improve maintainability, scalability, and performance. Introduced modular architecture and streamlined component reuse for future development.
- **Design Algorithm for ICILS Project Machine Marking**:
  - Designed and developed a **recursive algorithm** for **Blockly** (https://blockly.games/) machine marking in the **ICILS Project** (https://icils.acer.org/).
  - Transformed complex XML strings into executable code for grading coding exams, enhancing the project's automation capabilities.
- **Lead D3.js Data Visualization Update**:
  - Led the upgrade of the **D3.js visualization library** from version 4 to 7.9, improving performance and visualization features for **Assessment Master**.

- **Test-Driven Development (TDD) Leadership**:
  - Championed the **design and implementation of TDD methodologies**, establishing best practices to enhance code quality and maintainability across the software development lifecycle.

Skills & Technologies: *C#, .NET Core, Node.js, Angular, PHP, TypeScript, Algorithm Design, AngularJS, Test-Driven Development (TDD), PostgreSQL, SQL Server, Back-end API Development, Front-end HTTP Request/Response Development, MVC, Vanilla JavaScript, jQuery, CSS/SCSS, Yii, GitLab, GitHub, Azure DevOps, Jira*

Letour Cycles —— EC Web and Integration Developer (Dec 2019 - Oct-2021)

- **E-commerce Development**: Designed, developed, and deployed Shopify-based online stores, enhancing user experience and functionality.
- **API Integration**: Maintained seamless API communication for order processing, such as submitting orders to AusPost, syncing orders across platforms like eBay, Shopify, and Neto, and integrating wholesale partners by mapping their orders to our system for efficient processing.
- **SEO Optimization**: Created product pages with SEO features, including dynamic metadata injection to improve search visibility.
- **Product Page Development**: Built and maintained product pages using Neto E-commerce and Shopify platforms.
- **Data Monitoring**: Monitored and ensured smooth data exchange for orders and tracking information across multiple platforms.

Key Achievements
- **Built wholesale integration**:
  - During COVID, as the company initiated wholesale operations from 0 to 1, I built a system to integrate partner orders into the Neto platform.

Skills & Technologies: *CSS, Web Scraper, JavaScript, CSS, Google Ads/Analytics, Third-Party API Integration,SEO, Responsive Design,Accessibility Standards (WCAG)*

Australian Trading Bridge —— Full Stack Developer (Jan 2018 - Dec 2019)

- **Product Management System Development**: Developed a printing product management system and E-commerce website using Laravel 5.
- **Model and UI Development**: Configured Laravel Eloquent models, built PHP Blade views, and used Bootstrap for front-end UI design.
- **Database Migration**: Designed and implemented Laravel database migrations with MySQL.
- **Feature Enhancement**: Developed new features to meet sales team requirements, ensuring the system aligns with business needs.
- **System Optimization**: Optimized performance by resolving N+1 query issues and implemented custom middleware to support new features.

Skills & Technologies: *Laravel, HTML, CSS, MySQL, LAMP Development,Git & GitHub,AWS-EC2, Docker, Agile/Scrum methodologies*

FHL Group —— IT support (2016 - 2018)

- **API Management**: Managed APIs for different websites integrated with the PHP-based e-commerce system.
- **Web Development**: Added new features to the website, such as a Christmas Sale template and payment methods.
- **SEO Optimization**: Created new product listings with SEO features, including metadata injection with keywords.
- **API Communication**: Maintained seamless API communication between the company and carriers.

Skills & Technologies: *CSS, HTML, JavaScript, SEO,API Testing & Debugging,Third-Party API Integration*

5. Education

Bachelor of Computing (With Honours) —— University of Tasmania (Feb 2011-August 2014)

- **Graduate Project:** Develop a showcase website for the Career Hub of UTAS for future students (HTML+CSS, jQuery, Content Management System);
- **Honours Research Thesis Project**: Using Hopfield Network to Understand Alzheimer's Disease (Artificial Intelligence, Artificial Neural Network, Neural Science, MATLAB, Statistics);
- **Achievement**: **100%** for 2 major assignments and tutorial work for KXT309 Advanced Dynamic Web Development (LAMP and Javascript/jQuery full-stack project).

6. Reference

References' Contact Information Available Upon Request.