Jing Hui PANG

Full-Stack Software Engineer, Technical Leader, Project Manager

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In the fast-paced world of technology, I distinguish myself as a multifaceted Software Engineer with over 3 years of hands-on experience. Specialised in Java, PHP, and cloud-native solutions like AWS and Terraform, I have led cross-functional teams in delivering high-impact digital products. My unique blend of expertise ranges from scalable microservices and RESTful APIs to advanced data structures and CI/CD pipelines. A staunch advocate of agile methodologies, I transform complex requirements into robust and fault-tolerant systems. As I continually seek challenges that stretch the boundaries of software engineering, I am eager to contribute to forward-thinking organisations leading the tech innovation landscape.

TECHNICAL SKILLS

Programming Languages: *Main* - Elixir, Java, PHP, Bash | *Additional* - Python, JavaScript, TypeScript, Dart, Kotlin
Frameworks & Libraries: *Backend* - Phoenix, Yii2 | *Frontend* - Flutter, Tailwind, React, Vue, jQuery
Databases: *Relational* - MySQL, PostgreSQL | *NoSQL* - Firebase Realtime Database, DynamoDB, MariaDB
Web Technologies: SCSS, CSS, HTML5 | **Infrastructure & Configuration**: Terraform, YAML, JSON, Markdown

TOOLS AND TECHNOLOGIES

Development Environment: VSC, Vim, Android Studio, NetBeans | **Operating Systems**: macOS, Linux | **Build & Dependency Management:** Apache Maven | **Version Control**: Git, BitBucket | **Containerisation**: Docker | **Web Servers**: Nginx | **Cloud Platforms & Monitoring**: Firebase, AWS, Grafana | **DB Management**: TablePlus, Workbench |**Design & Collaboration**: Trello, Figma, AdobeXD | **API Testing**: PostMan | **Media & Other**: FFmpeg, ImageMagick

WORK HISTORY

Full Stack Software Engineer / Tech Lead — *Pixium Digital, Singapore*   *MARCH 2021 - PRESENT*

- Spearheaded web application projects, driving both the strategic direction and hands-on execution

- Developed robust web applications using Elixir, PHP, JS/TS, significantly improving UX and system performance

- Architected advanced data structures and schemas to ensure high levels of data integrity and operational efficiency

- Optimised MySQL and PostgreSQL queries, achieving a 62.5% boost in a complex analytics dashboard speed

- Orchestrated a Docker-based environment, leveraging PHP, Nginx & PostgreSQL to achieve operational excellence

- Automated deployments with Terraform, slashing initialisation times by 80% in a DevOps setting

- Crafted comprehensive technical documentation and user guides, benefiting both internal teams and the clients

- Achieved an 80% client satisfaction rate, leading to consistently successful deliveries and securing repeat contracts

- Mentored junior engineers, focusing on the best coding practices and enhancing their contributions to projects

- Managed User Acceptance Testing (UAT) protocols to align products with client specs and quality benchmarks

Full Stack Software Engineer Intern — *Pixium Digital, Singapore*   *SEPTEMBER 2020 - FEBRUARY 2021*

- Engineered robust web and mobile applications in a Docker-optimised setting, resulting in a measurable improvement in system efficiency and contributing to client retention for recurring contracts

- Actively collaborated with teammates on a Flutter-based mobile application and shared responsibilities in both mobile development and backend API integration, collectively exceeding client expectations

- Authored, executed, and rigorously tested UAT protocols and API test cases, effectively serving as the quality assurance agent to confirm alignment with client specifications and maintain high product quality

- Produced and updated technical documentation, enhancing project efficiency and team collaboration

- Designed efficient data structures and model diagrams to ensure data integrity in relational application schemas

- Deployed and managed scalable WordPress sites leveraging Docker for modular infrastructure benefits

- Acquired and honed project management skills, adapting to agile methodologies and client interactions

PROJECTS & ACHIEVEMENTS

Elixir — Phoenix Framework

- Revolutionised a client's workflow by engineering an **advanced file management system** with a nuanced search algorithm (**AWS Textract integration**, **Levenshtein** & **Lemmatisation**), achieving a complete shift from manual to automated processes and leading to a 100% productivity boost

- Developed and scaled a **responsive web application** with an integrated **RESTful API**, utilising **product identification API**, **FFmpeg** and **ImageMagick**, resulting in a 60% efficiency increase in business operations

- Architected a comprehensive **internal company platform**, encompassing performance reviews, leave and remote work scheduling, sales pipelines, and room booking utilities. Seamlessly integrated a **WhatsApp** bot and an internal activity dashboard, collectively boosting organisational efficiency and streamlining employee workflows

- Streamlined the **room booking** process for a **top-ranked engineering university in Asia** by architecting a responsive and intuitive system, resulting in a marked elevation of user efficiency and user satisfaction rates

PHP — Yii2 Framework

- Innovated a **multi-faceted web platform** amalgamating **messaging**, **friendships**, and **payments**, thereby enhancing user interaction and financial transactions within the ecosystem

- Conceived and executed a **robust training platform** with **dynamic scheduling** and **traceable lesson logistics**, substantially improving training efficiency and oversight capabilities

- Pioneered a cutting-edge **digital dashboard** that provides **real-time data analytics**, specifically focused on agricultural operations like **farm analytics**, leading to informed decision-making for stakeholders

- Engineered and launched a **game engine** featuring seamless **Zoom integration**, winning significant client acclaim

TypeScript

- Designed and developed a **real-time web-based game** using **TypeScript** and **Socket.IO**, significantly boosting organisational cohesion and promoting team collaboration

Dart — Flutter

- Orchestrated a comprehensive **mobile application** centered around **farmers**, seamlessly integrating task management with **IoT-enabled animal health analytics**, thereby revolutionising agricultural practices

- Conceived and launched an **engaging sports prediction mobile application** in **Dart (Flutter)**, leading to a remarkable 50% increase in user adoption and engagement rates within a short timeframe

Java (School)

Digital Service and Incentive Platform for Sentosa Development Corporation (SDC)

- Spearheaded the **full-stack development** of a multi-role digital platform using **Java** and **NetBeans IDE**

- Architected a **user management dashboard** with **CRUD** functionalities, enhancing administrative workflows

- Implemented a dynamic **announcement and notification system** to facilitate seamless communication

- Engineered a point-based incentive system with **feedback mechanism** for improvement and user engagement

- Amplified user experience through the inclusion of **web-based mini-games** and a **rewarding redemption feature**

Techniques used: Systems Design, Leadership, UX Design

EDUCATION

Diploma in Information Technology — *Singapore Polytechnic, Singapore*   *APRIL 2018 - MAY 2021*

- Specialised in **UI/UX Design** and **Data Structures & Algorithms**, establishing a strong academic foundation that equips me with key competencies essential for advanced software engineering roles

- Earned **2nd-place** as the **Full-Stack Team Leader** in a team of five for a **Java-based final year project** for **SDC**

- Served as an integral member of the SP Arts Council, where I **produced design assets** like posters and brochures, bolstering event visibility and engagement utilising **Adobe Illustrator** and **Photoshop**

- Accumulated multiple accolades as a standout member of SP Vocal Talents at both local and international stages

- Consistently honoured for contributing significantly to the success of SP Vocal Talents across various competitions

LANGUAGES

Chinese —— *Native/Bilingual Proficiency*

English —— *Fluent Proficiency*

Malay —— *Conversational Proficiency*