Shin Feng Wong

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Education

Singapore Institute of Technology | Bachelor of Science in Computing Science   *Sep 2020 – Aug 2024*
- Joint Degree with the University of Glasgow

Ngee Ann Polytechnic | Diploma in Information Technology   *Apr 2017 – May 2020*
- Experience with DevOps principles, Agile/Scrum methodology and hands-on with SAP ERP Business Functions and Processes.

Experience

Ernst & Young Solutions LLP | Technology Solution Delivery Intern   *Aug 2022 – Apr 2023*
- Supported the preparation of documents and oral presentations for project proposals in RFP contract bidding.
- Assisted in testing and amending configurations for SAP modules (e.g., Concur, FICO, RE-FX).
- Prepared walkthroughs to guide UAT users in testing deliverable SAP modules.
- Assisted Project Managers in monitoring project timelines, generating progress reports, etc.

Venture Corporation Limited | Process Automation Intern   *May 2021 – Aug 2021*
- Collaborated with team to gather requirements and addressed follow-ups for a project to automate the collection of visitors' information upon entering the compound, reducing contact between visitors and security staff during the COVID lockdown.
- Filtered SAP weekly material management reports and developed scripts to automate data massaging and visualisation of key report details, saving staff hours of weekly effort.

CapitaLand | Enterprise System Management Intern   *Mar 2019 – Aug 2019*
- Supported the implementation of system configuration changes in the SAP RE-FX module and conducted user acceptance testing (UAT) with users, assisting them in adapt to the new changes.
- Managed learning resources and documentation on the corporate learning portal to ensure technical specifications were up to date, making it easier for staff to find solutions to system related issues.

Projects

Audiolibrary | Personal Media Management Platform for Organizing Audio Libraries   *Feb 2025 – Current*
- Developing a modern audio library manager using Flask with SQLite database and Angular with Tailwind CSS, packaged using Electron.
- Configurable library management with database-persisted user preferences, and metadata scanning system that processes audio files.
- Implemented virtual scrolling using Angular CDK and incremental loading patterns for performance optimization, to ensure performance handling thousands of tracks while maintaining UI responsiveness.
- Utilises concurrent processing with background threading for CPU-intensive tasks and implemented reactive data flow using RxJS observables to maintain real-time UI updates.

Capstone Connect | Smart Student-Supervisor Matching for Capstone Project   *Apr 2024 – Jul 2024*
- Engineered and deployed a prototype full-stack application (React, MongoDB, Express, Node.js) on Vercel with CI/CD pipeline, designed to efficiently handle matching for 300+ students and 50+ faculty members.
- Transformed a manual, subjective matching process into an automated system that reduced matching time to minutes while improving compatibility outcomes by analysing research interest alignment.
- Implemented text processing through tokenisation and Jaccard similarity algorithms to quantify matches between student proposals and faculty research areas, with match optimization using Gale-Shapley's and Hungarian algorithms to maximize overall fit scores.

Worksite Environmental Monitoring | Internet of Things Worksite Monitoring   *Sep 2021 – Apr 2022*
- Comprehensive IoT monitoring solution capturing critical environmental parameters (temperature, humidity, noise) across multiple construction zones, enabling real-time hazard prevention through an interactive .NET/React dashboard
- Designed and implemented a resilient sensor network using multiple Raspberry Pi units with environmental sensors communicating via MQTT protocol, ensuring reliable data collection even in challenging worksite conditions.
- Built a complete data pipeline from sensor capture through RESTful APIs to PostgreSQL database, featuring data validation, automated alerts, and historical trend analysis for safety compliance reporting.
- Led bi-monthly demonstrations with industry partner, incorporating feedback to meet requirements and delivering a production-ready solution with comprehensive technical documentation.

Skills

Languages	Python, Typescript, Javascript, bash, C++, C#, R
Frameworks	React, Express, Flask, Angular, Tailwind CSS
Databases	MongoDB, MySQL, PostgreSQL
Platforms	Ubuntu, Docker, Kubernetes, Vercel
Others:	SAP ERP, Agile/Scrum Methodology