Wei Yang, Tan (Ventus)

(+44) 7787 558 553 | ventustwy21@gmail.com | linkedin.com/in/ventusTWY | GitHub Profile | Website

EDUCATION

Imperial College London | *London, United Kingdom*   Oct. 2020 – Jun. 2024
- MEng Aeronautical Engineering - *on track for First Class.*
- Modules include Computing & Numerical Methods (scored 86%), High-Performance Computing (scored 78%).
- Selected as Undergraduate Teaching Assistant for Computing & Numerical Methods module.
- SEO London Candidate, active member of Google Developer Student Club @ Imperial.

WORK EXPERIENCE

Technology Intern | *Macquarie Group - Futures Technology, United Kingdom*   Jun. 2023 – Aug. 2023
- Tech Stacks: Pandas, Apache Airflow, Apache Superset, PrestoDB, CI/CD using Atlassian Bamboo & uDeploy.
- Designed, developed and documented a data reconciliation tool for processing over 30,000 daily entries. Automated the process on Airflow, resulting in a 4-hour daily reduction in manual work and £5,000 in cost savings for the business.
- Contributed to cloud transformation of reporting tasks by migrating 8 legacy stored procedures to Python scripts.
- Implemented unit testings, modularised boilerplate code for enhanced performance and readability.

Software Engineering Intern | *GuruLab (EdTech Startup), Malaysia*   Jul. 2022 – Sep. 2022
- Tech Stacks: React, Refine, Chakra UI, NestJS, NodeJS, Vite, Prisma, Playwright, exposed to CI/CD, PostgreSQL.
- Designed and built 8 user-facing features and responsive UI for a new application over 600 users while maintaining three other applications, decreased churn rate of students by 20% and increased user engagement by 35%.
- Built an analytic feature that allows tutors to evaluate best and worst performing questions of an assignment, reduced tutor's weekly class evaluation time by 90 minutes, yielding RM4,000 ($\sim$£700) of weekly operational cost savings.
- Wrote user-facing end-to-end tests and API-level unit tests with streamlined test-driven development.

TECHNOLOGY PROJECTS

Solar Panel Cost Impact Calculator | *START Hack - St Gallen, Switzerland*   Mar. 2023 – Mar. 2023
- Advocated for sustainable energy use by creating a web application with 3D animated interface *(Three.js & Next.js)* to calculate electricity cost saved upon implementing solar panels based on geographical location.
- Awarded top in the Energy Category for Google Track of the hackathon.

Shallow-water Equation Solver with Parallel Computing | *Imperial College London*   Jan. 2023 – Mar. 2023
- Utilised object-oriented programming, OpenMP and C++ BLAS libraries to efficiently solve complex PDEs with an integration scheme. Developed a user-configurable CLI to run computations with up to 40 threads in parallel.
- Optimised performance using Oracle code profiler to identify bottlenecks such as memory allocations and cache locality, resulting in a significant reduction in code runtime. Achieved a 30x speedup compared to the serial version.

Technology Consulting Project | *iCube International, in partnership with CircaGene*   Apr. 2022 – Jun. 2022
- Created a dashboard on MongoDB Compass to display patient health status to related bacterium and disease, reduced search time by 2 hours per week, allowing business to develop recommendations earlier to patients.
- Documented SOPs to sustain and expand a versatile database on both Microsoft Access & MongoDB.

Simulation of Viral Disease Transmission | *Imperial College London*   Jan. 2022 – Feb. 2022
- Project inspired by COVID-19 pandemic to simulate disease transmission for population in a fixed domain.
- Plotted running graphs of population movement, health status and immunity level across 10 days on MATLAB.

LEADERSHIP, VOLUNTEERING & EXTRACURRICULAR

Deputy National Executive Director (UK) | *International Council of Malaysian Scholars*   Feb. 2021 – Feb. 2022
- Led a team of 50 and collaborated with corporate sponsors and directors across 6 countries to develop the professional skills of over 500 Malaysian undergraduates through initiatives related to IoT, Digitalisation, & Banking.
- Spearheaded the production of an iGTV Series 'AskJeLah' to increase Instagram growth by 25%.

Founding Team and Program Associate | *Rakan Tutor*   Jun. 2021 - Jan. 2022
- Non-profit organisation that provided free Mathematics tutoring to 250 underprivileged students in Malaysia.
- Constructed the program structure and prepared tutoring resources, improved students' score by 17% on average.

TECHNICAL SKILLS, INTEREST & LANGUAGE

Technology: C++, Python, JavaScript, TypeScript, MATLAB, HTML, CSS, SQL, Microsoft VBA, React, Svelte, Git.
Interests: Web Development, Stocks & Crypto Investment, Trading , Plays the Double Bass in Orchestra, Basketball.
Language: Mandarin (Native), English (Fluent), Malay Language (Fluent), Cantonese (Conversational).