Ong Yi Sheng

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A highly motivated final-year student with a strong interest in Computer Science, eager to learn and seize any opportunity. Demonstrated good leadership and problem-solving skills while managing teams and overcoming challenges. Proficient in various programming languages and development tools. Actively involved in projects and extracurricular activities to broaden technical expertise. Seeking an internship to apply passion and willingness to learn new things.

EDUCATION

Universiti Tunku Abdul Rahman (UTAR), Kampar
Bachelor of Computer Sciences (Honours) *OCT 2023 – CURRENT*
CGPA:3.5

Universiti Tunku Abdul Rahman (UTAR), Kampar
Foundation in Science
CGPA: 3.2 *OCT 2022 – OCT 2023*

WORKING EXPERIENCES

Renesas Electronics – Software Engineer Intern *OCT 2024 – FEB* 2025

- Collaborated effectively with a remote supervisor based in San Jose, communicating through daily scrum meetings, enhancing remote communication and agile teamwork.
- Developed and integrated responsive Angular frontend components with a robust **Flask** backend, ensuring seamless interaction with SQL databases with **PostgreSQL**.
- Migrated critical project frameworks from **FastAPI to Flask**, optimizing performance and security of API endpoints.
- Developed comprehensive unit and integration test cases using tools like pytest **and Jasmine/Karma**, achieving over 90% test coverage.
- Configured and maintained CI/CD pipelines with GitHub Actions and Jenkins, integrating Docker for consistent, containerized deployments.
- Leveraged SonarQube to conduct code quality analysis, proactively resolving vulnerabilities and reducing technical debt.
- Gained proficiency in multiple technologies including **Angular, TypeScript, Flask, Python, HTML/CSS, and Docker**.
- Developed strong time management and adaptability skills in a flexible work environment that balanced remote and on-site collaboration.
- Cultivated an effective mentorship relationship with my supervisor, fostering independence and boosting confidence in real-world problem-solving.

Universiti Tunku Abdul Rahman (UTAR) – University Research Assistant *AUG 2024 – JAN* 2025

- Collaborated with **Dr. Muhammad Syaiful Amri Bin Suhaimi** to integrate research insights with practical system development
- Developed a **computer vision-based workout posture detection system** using **MediaPipe and OpenCV.**
- Implemented real-time posture detection with precise landmark computation, enhancing overall system functionality.
- Overcame debugging challenges to refine human pose estimation, deepening technical expertise.
- Conducted an in-depth literature review on motion detection techniques to solidify theoretical foundations.
- Authored a detailed project proposal and optimized system accuracy through rigorous testing.
- Advanced research, analytical, project management, and academic communication skills.

Jy. Dream – **E-commerce Coordinator** *MAY 2021 – OCT* 2021

- Maintain and update product listings, including descriptions, pricing, and inventory information.
- Ensure the accuracy of information and perform regular updates as needed.
- Monitor and manage inventory levels to prevent stockouts or overstock situations.
- Utilize Excel to organize, analyze, and manage product and inventory data.
- Handle customer inquiries and resolve any issues related to product listings.

Awards

Awarded Top 100 in 2025 EY Open Science AI and Data Challenge: Cooling Urban Heat Islands LinkToCertificate

- Awarded **84th Place (Top 100) among 2000+ participants** in **the 2025 EY Open Science AI and Data Challenge: Cooling Urban Heat Islands**.
- Developed an end-to-end machine learning pipeline using Python (Rasterio, OpenCV, scikit-learn, XGBoost) to predict UHI indices with **0.9607 accuracy**.
- Enhanced satellite imagery with CLAHE and computed key indices (NDVI, EVI, NDWI, etc.) for robust feature extraction and geospatial analysis.
- Employed advanced preprocessing (RobustScaler, PowerTransformer), cluster-based stratification, cross-validation, and pseudo-labeling to optimize model performance.

Won Most Popular Award in Hackathon – Hack-Attack 2024 LinkToCertificate

- Achieved Top 10 ranking in the hackathon.
- Developed a full-stack web application: A carbon emission calculator with weather forecasting and route optimization.

Certified in edX (USMx)- Digital Marketing Analytics: Tools and Techniques LinkToCertificate

- Skills in utilizing various analytics platforms, understanding customer behavior, and making data-driven decisions to enhance marketing strategies and outcomes.
- Certified in data collection, analysis, and interpretation, enabling the effective measurement and optimization of digital marketing campaigns.

PROJECTS

Stock Management System – Java GithubLink

- Basic inventory management tasks like adding new items and displaying current stock
- Provides the main functionality for adding and viewing products, using a basic GUI for user interaction.
- Provide user able to store the product data by different categories

Library Management System – C++ GithubLink

- Allows for basic library operations such as adding books and students, borrowing books, returning books, and displaying the status of books and students.
- Editable .txt file for user. Allows user to add students for performing operations by different selection.
- The perform solution lets users choose to print the output either to a file or on the screen, with or without the details of books

Snake Game – Python GithubLink

- Allows player to control a snake, guiding it around a grid to consume food items that appear at random locations
- Each time the snake eats food, it grows longer, making the game progressively more challenging as the player must avoid colliding with the walls and the snake's own body.

BST– C++ GithubLink

- Provides a way to manage and interact with student records using a binary search tree, offering functionalities to read data, display it in various ways, and perform operations on subtrees.
- Allow user to add the students record to perform operations by through a binary search tree.

Skills

- **Python, Flask, FastAPI,**
- **C++**
- **Java**
- **SQL, MySQL, PostgreSQL**
- **Excel**
- **JavaScript, TypeScript, Express.js, Node.js, Angular**
- **Git**
- **CI/CD**
- **Docker**

Language

- **English**
- **Chinese**
- **M**