DENNIS HUANG
SOFTWARE ENGINEER

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SUMMARY

Analytical Software Engineer with hands-on experience in backend and full-stack web development using Python, Flask, FastAPI, SQL, and Docker. Developed and deployed production-ready systems, including a Worker Identification System (WIS) that increased workflow efficiency by 60%. Skilled in REST API design, database optimization, and containerized deployment, with a strong foundation in object-oriented programming, web security, and UI/UX design principles. Focused on building scalable, maintainable, and user-centred applications that improve operational performance.

TECHNICAL SKILLS

- Languages: Python, PHP, C++, C#, SQL, JavaScript, HTML 5, CSS.
- Frameworks: Flask, FastAPI, Bootstrap, TailwindCSS, REST API, React.js, ASP.NET Core Web API.
- Authentication & Security: Keycloak for role-based access control (RBAC) and single sign-on (SSO).
- Databases: MySQL, PostgreSQL.
- Tools & DevOps: Docker, Git, GitLab CI/CD, Keycron.

PROFESSIONAL EXPERIENCE

REDtone Sdn Bhd, Software Engineer Intern   Aug 2024 - Jan 2025

- Developed and deployed Worker Identification System (WIS) using Flask and MySQL, automating staff credential management and boosting data retrieval efficiency by 60%.
- Engineered and optimized RESTful APIs with Flask/FastAPI, integrating the HR team's API and eliminating 4 hours of manual data entry weekly.
- Designed and implemented responsive UI components using HTML, CSS, and JavaScript (Bootstrap), reducing input errors by 25%.
- Created and maintained 30+ reusable frontend modules (navigation, tables, modals) using GIT version control to streamline development.
- Collaborated using Git, GitLab CI/CD, and Docker, resolving 10+ merge conflicts during the WIS project to ensure continuous integration.

PROJECTS

BMDS-ZKP: Secure Electronic Health Records (EHR) in Web Application   Feb 2025 - Jul 2025

- Designed and deployed a secure EHR system integrating CP-ABSE and Schnorr ZKP, increasing data confidentiality and access accuracy by ~40% while preventing unauthorized retrieval attempts.
- Added Ethereum-based audit logging, delivering 100% tamper-proof access trails and reducing audit verification time by ~50%.
- Built end-to-end integrity workflows using Flask, Docker, MySQL, Web3.py, IPFS, AES, and CP-ABSE, improving record retrieval reliability by ~35% and cutting manual validation overhead by ~60%.

EDUCATION

Bachelor of Computer Science and Technology (Hons)   Sep 2021 - Sep 2025
Xiamen University Malaysia │ **CGPA 3.30/4.00**

ADDITIONAL INFORMATION

- **Languages:** English, Bahasa Indonesia, Bahasa Melayu, Mandarin, Hokkien.