

Tania Koh Tze Ern

+65 92370950 | taniakohtzeern@gmail.com | <https://www.linkedin.com/in/tania-koh-tze-ern> | github.com/taniakoh

EDUCATION

Singapore University of Technology and Design <i>Bachelor of Engineering in Computer Science, Minor in Artificial Intelligence</i>	Singapore
	Sep. 2022 – May 2026

EXPERIENCE

Full Stack Developer Intern <i>Tessely AI</i>	October 2025 – May 2026
	Singapore

- Engineered web components using React, Tailwind CSS, Typescript, FastAPI and PostgreSQL (Supabase) with Chakra UI components for the Tessely SaaS platform, transforming process-mining data into dashboard visuals for enterprise process analysis
- Deployed the platform using Vercel for frontend hosting and Railway for backend services
- Led end-to-end product design for the landing page and core SaaS application using Figma

Full Stack Software Engineer Intern <i>Infineon Technologies</i>	August 2024 – December 2024
	Singapore

- Developed full-stack features for the CRM website redesign using C#, HTML, CSS, Javascript, Kendo UI and SQL in ASP.NET to be used by 50+ Business Analysts globally for managing 100+ sample requests orders daily
- Architected the UAT/QA Test Automation (UI) workflow with the custom feature of integrated exporting of test results to Excel to be integrated into the CI/CD pipeline using Python and Playwright
- Designed full UI/UX design using Figma and cross-functional collaboration with Sales and IT team to significantly improve sales operations by 35%
- Collaborated in a Scrum team environment of 7 while utilising Azure DevOps, Git and Confluence

PROJECTS

Algorithm-Driven Workforce Management Application 	St. Andrews Community Hospital
<ul style="list-style-type: none">Developed a responsive full-stack web application using React, FastAPI, PostgreSQL in Typescript by leading a 7-person Agile team to streamline staff operational management into a centralised platform for hospital staffEngineered comprehensive CI/CD suite with GitHub Actions automating Docker deployment to AWS EC2, merge conflict detection, and Dependabot auto-merge workflowsEngineered AI/ML-driven optimisation algorithm methods in Python to automatically generate staff rosters, reducing manual rostering time by over 3 hours per cycleDelivered end-to-end UI/UX design to support usability of hospital staff workflows	

Mental Health Nonprofit Platform 	Mendisphere, Bettersg
<ul style="list-style-type: none">Designed and developed interfaces using Figma, React.js, Material UI and Typescript, integrating Firebase backend services to enable mental health organisations to access resources efficientlyCreated and executed 10+ test scripts for backend unit testing using Jest with mockingWorked in a team of 5 using Jira and Confluence for project management	

Automated Training Management Application 	TSH Group Singapore
<ul style="list-style-type: none">Engineered an autonomous monitoring and visualization dashboard using React, Ant Design, Express.js, Node.js, and MongoDB in TypeScript, automating HR data tracking and reporting workflowsTranslated stakeholder requirements into use case diagrams and functional specifications using a Waterfall SDLC approachImplemented Cypress end-to-end frontend testing and Jest backend unit testing	

Code-Switching Data Translation Pipeline 	
<ul style="list-style-type: none">Built an open-source multilingual code-switching data translation pipeline in Python, generating 3,000+ annotated sentence pairs to support natural language inference (NLI) researchEngineered using LangChain multi-AI agent workflow using Graph and OpenAI APIReleased the dataset on HuggingFace for research use, achieving 80+ downloads	