Chin Wei Ming

M: 8032 5190 | E: weiming1902@gmail.com | LI: linkedin.com/in/weiming-chin | Portfolio: Project portfolio

EDUCATION

- **Singapore University of Technology and Design**   **Sept 21 to May 2025**
- Bachelor of Science (Design and Artificial Intelligence), Minor in Computer Science and Digital Humanities
- Recipient of KKH-SUTD scholarship

WORK EXPERIENCE

Thales Singapore   **Aug 23 to Dec 23**
Design Innovation Engineer Intern
- Collaborated with cross-functional teams including engineers, designers, and business stakeholders to translate insights from Design Thinking workshops into actionable product requirements and solutions.
- Developed and implemented dashboard prototypes using Figma, creating KPI visualisations that improved operational efficiency through real-time performance tracking.
- Researched performances of AI technologies, resulting in strategic AI recommendations to internal teams.

ACADEMIC PROJECTS

Retrieval-Augmented Generation (RAG) Chatbot | Machine Learning Operations (MLOps)   **Jan 24 to May 25**
- Built an end-to-end RAG pipeline with LangChain for a contextual SUTD website chatbot.
- Web crawled through SUTD website pages, transformed into Markdown with enriched metadata.
- Fine-tuned Llama 3.2 1B model using synthetic QA pairs generated by LLMs to enhance response quality.
- Evaluated performance using LLM-as-a-judge techniques.

Re-imagine Public Engagement with GenAI, Urban Redevelopment Board   **Sept 24 to Dec 24**
- Our team created a public engagement application leveraging Generative AI tools (image in-painting, prompt upscaling, AI critique, from conceptualisation to execution.
- Designed and developed the urban-planners facing analytical dashboard using Figma for rapid prototyping and React for front-end development.
- Our application results in 3x faster completion rate and 68% higher user retention than conventional workflow.

Manpower Allocation Dashboard, Central Provident Fund   **Jan 24 to Apr 24**
- Led the design and prototyping of an analytical dashboard to optimise manpower allocation using historical trends.
- Built and validated ML and mathematical models to forecast daily enquiry demand, reducing the need of manual estimation.
- Researched and integrated suitable simulation system to support the project's objective.

Skin Lesion Classification, Deep Learning   **Jan 24 to Apr 24**
- Built Capsule Network model with 82.5% accuracy, trained and evaluated on HAM10000 skin lesion dataset.
- Applied Grad-CAM for model explainability, enhancing the credibility of machine learning based skin lesion diagnostics.
- Leveraged Generative Adversarial Network (GANs) technique to expand dataset, improving model generalisation.
- Achieved accuracy comparable to human experts using deep learning, demonstrating a proof of concept for early-stage AI-assisted diagnostics.

Guiding Hand, an app for woman facing unplanned pregnancy, Gebirah   **May 23 to Aug 23**
- End-to-end development of an AI-powered support app, integrating NLP chatbot, self-harm detector, and chat summarisation for healthcare use.
- Collaborated with founder of Gebirah, to align technical features with user needs and business goals.
- Built automated testing scripts using Puppeteer (Javascript), ensuring reliability and functionally across the app.

CO-CURRICULAR ACTIVITIES

SUTD Football Club   **Jan 22 to Jan 25**
President | Team Captain
- Led a 50-member organisation, managing a $3,500 budget to optimise resource allocation for key initiatives and team development.
- Represented SUTD as team captain in the annual inter-varsity tournament for three consecutive years.
- Organised large-scale events and marketing campaigns to promote football, collaborating stakeholders to drive engagement and community participation.

ADDITIONAL INFORMATION

- **Programming Languages:** Python, SQL, JavaScript
- **Machine Learning & Deep Learning:** TensorFlow, PyTorch, Scikit-learn, NLP, Computer Vision, LangChain
- **Data Handling & Analysis:** Pandas, Numpy, SQL, Matplotlib, Seaborn
- **Tools & Platforms:** Git, Vast.ai, Figma, FastAPI
- Fluent in **English** and **Mandarin** (spoken & written), and **Malay** (spoken)

27 November 2024

To Whom It May Concern

Eligibility for Employment Pass

1   Chin Wei Ming G3790020L is expected to graduate from Singapore University of Technology and Design and has a Ministry of Education bond obligation to serve in Singapore.

2   This letter serves to inform you that the Singapore government will exercise flexibility in the assessment of the Employment Pass application of Chin Wei Ming. You should also use the Self-Assessment Tool on the Ministry of Manpower's website for an indicative assessment on whether the applicant qualifies for an Employment pass. If your company finds this graduate suitable for a position and makes an Employment Pass application to the Ministry of Manpower (MOM), the necessary work pass arrangements will be facilitated after receiving your submitted application. This is subject to the qualifying notes overleaf (as attached), which includes complying with the Fair Consideration Framework.

3   This letter is supported by the Ministry of Manpower and is valid for 12 months from the date of graduation or date of issue, whichever is later.

4   You may email Daniel Cheong, the Career Coach, at daniel_cheong@sutd.edu.sg for clarification. Thank you.

Yours sincerely,

Angelvin C. Parma
Head, SUTD Career Development Centre