

# Kelvin Thian

Aspiring AI/ML Solutions Architect

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## Summary

Highly motivated AI/ML developer with proven experience deploying production AI solutions at scale, specializing in LLMs, computer vision, and cloud architecture seeking to leverage end-to-end development skills in building enterprise AI systems. Equipped with project planning and development experience using AI and ML frameworks coupled with traditional tech stacks to collaborate in dynamic teams.

## EDUCATION

### Singapore University of Technology and Design (SUTD), Sept 2021 to May 2026

- Bachelor of Science (Design and Artificial Intelligence), Honours
- Relevant Course Work: Machine Learning, Software Design Studio, System Design Studio
- SUTD STEP Scholarship Holder

### Exchange Studies: University of California, Berkeley & Zhejiang University

- Course Work: Finance, Traditional and Social Media Marketing, Design Thinking, Unstructured Data Analysis

## Certifications

- Google Professional Machine Learning Engineer

## WORK EXPERIENCES

### Synapse, Chief Architect's Office, Singapore May 25 to Sept 25

#### LLM Software Development Internship

- Architected and developed an end-to-end AI/ML enabled knowledge platform for internal architects using AWS Cloud, Streamlit and Python on 1000s of documents.
- Prompt engineered existing foundational models on AWS Bedrock for solution architecture diagram generation and metadata extraction using boto3 and langchain.
- Used AWS Sagemaker to develop embedding endpoints, Docker for containerization and Kubernetes on EKS for POC deployment workflow.

### Thoth, San Francisco May 24 to Aug 24

#### ML/AI and Software Development Internship

- Prepared thousands of unstructured data for effective ingestion for machine learning pipelines using AWS S3 and Python.
- Developed an Inference Endpoint API for Object Detection using YOLO in 4 weeks with 60% class accuracy given a 1000 image training dataset to perform inferences in seconds.
- Implemented a generation and evaluation framework that is futureproof for infographic evaluation and iterative development using python opencv that can evaluate labelled infographics in seconds

### Defense Science and Technology Agency (DSTA), Building and Infrastructure, Singapore August 23 to December 23

#### Data Visualization and Application Development Internship

- Developed a full featured WebApp based visualization platform with React JS and Python to streamline maintenance works in 2 months.
- Led the technical portion of a pilot project with senior engineers for requirements and sprint meetings using AGILE for 4 sprints and we delivered the solution in time and exceeded expectations by 2 features.
- Adapted real life construction related maintenance works to the software domain through data ingestion methodology reducing manhours spent by up to 90%.

## **National Computing Systems (NCS), Singapore May 22 to September 22**

### **Software Development Internship**

- Cooperated well with senior developers in a software development role to work on projects under Enterprise Singapore using DOTNet Framework to expedite changes and updates to live systems.
- Coordinated with overseas engineers NCS Cheng Du frequently and worked together on implementing 3 service requests with drafting of full User Acceptance Testing documents.
- Rigorously tested WOGGA implementations and done impact analysis and provided estimates for service request and implementation as per requirement specification to ensure rigor in existing systems.

## **ACADEMIC PROJECTS**

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### **Tik Tok Challenge 2023, Singapore August 23 to September 23**

#### **Architected a full stack solution for an AI Enabled Personal Digital Storefront**

- Ideated, conceptualized and collaborated with 4 members in a short 4 weeks to deliver a holistic solution of usable Gen AI storefront
- Connected Gen AI API from Stability.AI to a Python Flask backend to use generate and serve images on Vercel cloud for automated image generation
- Attained 5/100+ teams in the final round at Tik Tok HQ Singapore after a pitch to leading executives and technical team.

### **Software Development in DBS Elderbank Application , Singapore May 23 to Aug 23**

- Developed backend API endpoints using Agile for facial recognition with AWS for expedited authentication for the elderly
- Crafted holistic testing suite for backend API testing to increase test coverage.
- Orchestrated and designed a 3-minute corporate pitch video shown in an expo for directors and executives of other companies

### **Software Development AI Applications in Design, Singapore February 23 to May 23**

#### **Generating Product Reports from Product Name**

- Designed the programming architecture and AI pipeline using NLP models from Huggingface and OPENAI APIs to conduct sentiment analysis and generate recommendations for consumer products with review and comments on the internet.
- Implemented API pipelines with NLP transformer and hugging face models and using public datasets and large language models to implement potential solutions for real world use cases

## **Languages**

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English (Native), Chinese (Native)

## **Skills**

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**Programming Languages:** Python, Java, Ruby, Dart | **Web Development (Backend):** Flask Framework, FastAPI, DOTnet Framework, Ruby on Rails | **Web Development (Frontend):** React Js, Next Js, HTML5 | **Databases:** SQL, PostgreSQL, Mongo DB | **Machine Learning & AI:** Machine Learning with OpenCV, Tensorflow, Pytorch | **Cloud Platforms:** AWS, GCP | **Design & 3D Software:** Fusion360, Rhino, Blender | **Mobile Development:** Flutter | **Deployment :** Docker, Kubernetes

## **Co-Curricular Activities and Experiences**

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### **Chong Hwa Tong Teck Hwee, Singapore December 22 to Current**

#### **Youth Team Coordinator**

- Designed and structured milestones and events for a group of 50 youths throughout the year to provide education and bonding opportunities. Executed logistical sourcing for team bonding and welfare-based events

### **Vice President Mountaineering, Singapore May 22 to May 23**

- Planned and Liaised overseas expeditions with partners for a team of 7-10 mountaineers
- Conducted weekly training and performed administrative duties with purchase orders and schedule planning