

# Thung Han Hee

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## EXPERIENCE

### NINJA VAN | CHIEF TECHNICAL ARCHITECT

Jul 2024 to Present - Singapore

- Headed the Technical Architecture Committee, governing decisions across 4 engineering labs and 100+ engineers, ensuring alignment with business goals.
- Drove organization-wide AI adoption by leading exploration, training and integration initiatives, accelerating the team's transition to AI-assisted workflows.
- Designed and implemented multi-agent AI systems with Telegram bot integration using RAG and knowledge graphs, enhancing delivery operations.

### Senior Staff Software Engineer - Jul 2021 to Jul 2024

- Integrated machine learning and string-matching algorithms into the address geocoding system to achieve a delivery zone accuracy of 99.3% in Malaysia.
- Collaborated with the SRE team to create Go libraries for development/testing, and standardized microservice templates to accelerate new service deployment.
- Refactored monolithic services serving 100M+ requests/day, managed API and database migrations, introduced multi-cluster caching, and executed framework upgrades with zero downtime via blue-green deployments.
- Launched Ninja Van's data archiving initiatives with Kubernetes CronJobs, reducing OLTP database costs by 20% and improving query performance.
- Automated API client/docs generation using OpenAPI specs, streamlining development workflows and reducing maintenance overhead across all teams.

### Staff Software Engineer - Jul 2017 to Jul 2021

- Enhanced fault tolerance across 100+ microservices processing 1M+ parcels/day with circuit breakers, retry/caching and Kafka batch processing. Migrated teams to common, modular Java libraries.
- Promoted knowledge sharing through organized talks, drove standardized documentation practices, and engaged in external outreach events to schools.
- Established and led the Engineering Excellence team to define coding standards, upgraded CI/CD to integrate SonarQube and automate testing processes.
- Deployed Ninja Van's first data pipeline using Airflow, implemented DAGs to extract and transform data to parquet format for efficient storage in GCS.
- Prototyped a parcel weighing/dimensioning system with Kinect-like cameras and Intel NUCs for low-cost warehouse sorting. Used C++/OpenCV for image processing and Euclidean clustering for point cloud segmentation. ➔
- Built a high-throughput microservice to log parcel operations, handling over 700 Kafka events/sec (60M events/day), deployed on Kubernetes in AWS.

### Senior Software Engineer - Jul 2016 to Jul 2017

- Developed Play Java microservices for routing deliveries with Hazelcast read-through caching. Led frontend projects, mentored engineers, and facilitated knowledge sharing across teams.

### Software Engineer - Oct 2015 to Jul 2016

- Redesigned frontend architecture for a multi-country operations dashboard, led AngularJS adoption, and reduced deployment costs through AWS S3 and CloudFront CDN static asset hosting.

### MOBIKON ASIA | SOFTWARE ENGINEER

Dec 2013 to Sep 2015 - Singapore

- Deployed a Play Scala app to Heroku for restaurant e-menus, feedback tools, and CMS dashboards. Built cross-platform AngularJS/Cordova apps for mobile and web, serving restaurant chains in Singapore and India.

### STANFORD UNIVERSITY | PROGRAMMER

Nov 2012 to Oct 2013 - School of Medicine, Stanford, California, USA

- Created teaching software in Unity3D, optimized to accelerate content creation.
- Delivered video capture, stereoscopy and haptics software for research studies.

## EDUCATION

### STANFORD UNIVERSITY

MS in Electrical Engineering

Mar 2012 | Stanford, CA

GPA: 3.5 / 4.0

### UNIVERSITY OF ILLINOIS

BS in Electrical Engineering

Minor in Business

May 2010 | Urbana-Champaign, IL

GPA: 3.84 / 4.0

## SKILLS

### PROGRAMMING

Go • Java • JavaScript • C++ • Bash  
Python • Scala • HTML • CSS/Sass  
Angular • React • LangChain

### CLOUD & DEVOPS

Kafka • Redis • Kubernetes • Docker  
MySQL • Elasticsearch • Ansible  
GCP • AWS • Huawei Cloud

### PLATFORMS & TOOLS

Git • Bamboo • JIRA • Confluence  
IntelliJ • VSCode • Sublime •  $\LaTeX$

## AWARDS

2021 Certified Scrum Master

2019 AWS Hackdays Singapore Winner

2009 Harriett & Robert Perry Award

2007 James Scholar & Dean's List

2006 Singapore Armed Forces Medic &  
Best Soldier

## COURSEWORK

### GRADUATE

Convex Optimization • Artificial  
Intelligence • Machine Learning •  
Interactive Computer Graphics •  
Digital Image Processing • Adaptive  
Signal Processing • Statistical Signal  
Processing • Linear Dynamical  
Systems • Control Design Techniques  
• Project: Hand gesture recognition  
for automatic picture taking, 2011

### UNDERGRADUATE

Digital Signal Processing • Robotics •  
Control Systems • Solid State Devices  
• IC Fabrication • Electric Machinery  
• Power Circuits & Electro-Mechanics  
• Project: Portable text to Braille  
reader, 2010