

# Ding Feng Wong

SOFTWARE ENGINEER · AI & ML ENTHUSIAST

712A Jurong West Street 71, #02-189, Singapore 641712

☎ (+65) 8796-2925 | ✉ dingfengwong@gmail.com | 🍷 TomatoCream

## Education

### Tokyo Institute of Technology (TITech)

Tokyo, Japan

B.S. IN COMPUTER SCIENCE

Sept. 2019 - Feb. 2020

- Japan Student Services Organization (JASSO) Scholarship

### National University of Singapore (NUS)

Singapore, Singapore

B.S. IN COMPUTER SCIENCE

May. 2016 - May. 2020

- School of Computing Award Scholarship
- Graduated with Honours

## Links

GITHUB

GITHUB.COM/TOMATOCREAM

FACEBOOK

FACEBOOK.COM/DINGFENGW

TELEGRAM

T.ME/WONGDINGFENG

LINKEDIN

DING-FENG-WONG-5A8B5115

## Coursework

NATIONAL UNIVERSITY OF SINGAPORE (NUS)

- Machine Learning
- Planning and Decision Making
- Deep Learning
- Software Engineering
- Design and Analysis of Algorithms
- Operating Systems
- Computer Networks

## Skills

### General Programming

Languages:	JavaScript	Python	Java
	Scala	C++	Haskell
	Emacs-lisp		
Markup:	Orgmode	Markdown	LaTeX
Environment:	NixOS	ArchLinux	Ubuntu
	Debian	CentOS7	
Hypervisor:	Proxmox	KVM	Qemu

### Machine Learning

Languages:	Python		
Tools:	Jupyter	Scikit	Numpy
	TensorFlow	Keras	Pandas
	OpenCV		

### Web Development

Languages:	JavaScript	Python	
JavaScript:	Node.js	Express	React
	Material-UI	Socket.IO	Redux
	MongoDB	GraphQL	
Python:	Flask	Django	

### General Tools

Tools:	Emacs	Vim
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## Summary

Singaporean, eligible for **H-1B1-Singapore-Visa**. Current undergraduate at the **National University of Singapore (NUS)**. Specializing in Artificial Intelligence. Uses Linux as a daily driver and loves making things!

## Work Experience

### OKBL Pte Ltd, OKX Exchange

Singapore, Singapore

Jan. 2024 - present

SENIOR SOFTWARE ENGINEER, CORE TEAM BACKEND MATCHING ENGINE

- Develop and maintain matching engine architecture for the OKX exchange using **Java** and **C++**.
- Low level network and kernel level optimizations on **Red Hat** systems with **UDP** protocols.
- Developed message streaming and update systems using **Aeron** framework.
- Forward error correction and redundancy systems deployed on **AWS** and **AliCloud**.
- Aeron Cluster** raft consensus implementation for high availability architecture.
- Aeron UDP** IPC and multideestination cast communication protocols.
- FIX protocol **Simple Binary Encoding (SBE)** for efficient message serialization.
- Research SIMD and vectorization for faster orderbook operations, managed with **Git** and **Emacs**.

### Sea Group, Shopee

Singapore, Singapore

June. 2020 - June. 2023

SENIOR SOFTWARE ENGINEER, BACKEND

- Big data with high volume (25TB), throughput (25k QPS) and low latency real time data.
- Fluent with frameworks such as Yarn, Flink, Spark, Hive, Kafka, Redis, Elasticsearch.
- Written connectors, transformers and concurrent backend querying code.
- Django python services backend

### JPMorgan Chase & Co.

Singapore, Singapore

May. 2019 - Aug. 2019

SOFTWARE ENGINEERING SUMMER INTERN

- Developed frontend using **Angular 7**.
- Wrote backend in **Java Springboot** with **Swagger** to work easily with users.
- Dockerized** application for consistent deployment.
- Give talk on practical uses of functional programming in **NixOS**

## Projects

### Auto Manga Colourisation Deep Learning Project

Singapore, Singapore

Jan. 2018 - May. 2018

AUTO MANGA COLOURISATION DEEP LEARNING PROJECT

- Won **1st Runner-Up** in NUS's 12th School of Computing Term Project Showcase (steps).
- Trained a **neural network model** to add colour to sketches.
- A combination of **Unet**, **VGG-19** and **Generative Adversarial Networks (GANs)**.

Languages:	Python		Environment:	ArchLinux	Ubuntu		
Framework:	TensorFlow	Keras	Tools:	Emacs	Unet	VGG-19	GANs
				Jupyter	Git	OpenCV	

## Honors & Awards

### INTERNATIONAL

2011 **Finalist**, RoboCup International

Singapore

### DOMESTIC

2018 **Star Performer Best Employee Award**, Works Application Co., Ltd.

Singapore

2018 **1st Runner-Up**, CS6101 Deep Learning, School Term Project Showcase (STEPS)

Singapore

2013 **1st Runner-Up**, SembCorp Water Technology Prize

Singapore

2011 **Best Mechanical Design**, RoboCup Singapore

Singapore