

# Kai Yang Tay

taykaiyang556@gmail.com | xfated.github.io/portfolio-site

## EDUCATION

### NATIONAL UNIVERSITY OF SINGAPORE

#### BS IN ELECTRICAL ENGINEERING

Jul 2022 | Singapore

College of Engineering

CAP: 4.72 / 5.0

## LINKS

Github:// [xfated](#)

LinkedIn:// [kai-yang-tay](#)

## COURSEWORK

### UNDERGRADUATE

Parallel Computing

Computer Architecture

Artificial Intelligence

Data Engineering

## SKILLS

### PROGRAMMING

Proficient - Languages

Java • Shell • Python • TypeScript

Proficient - Others

Terraform • AWS • React •

Next.js • Spring Boot • Datadog

Familiar:

Docker • MySQL • Deep Learning •

gRPC • GraphQL

## EXPERIENCE

### INDEED | PLATFORM PARTNERSHIPS - SOFTWARE ENGINEER

Jul 2022 - Mar 2023 | Singapore

- Engineered an ETL pipeline with Terraform, AWS and Python to process more than 1 TB of data
- Created and updated over 100 monitors and dashboard charts to effectively inform the team of production issues
- Improved team's continuous integration practices through updating deployment scripts
- Improved functionality of backend gRPC services in Java

### FREELANCE DEVELOPER | WEB DEVELOPMENT

Dec 2021 - Jul 2022 | Singapore

- Communicated with clients to understand project requirements, established realistic timelines, and delivered solutions on time
- Maintained and improved the functionality and design of websites using React, Typescript and CSS
- Integrated third-party APIs (MailChimp, Shopify) to enhance website functionality and user experience
- Implemented Web3 integration by enabling interactions with smart contracts on the Ethereum blockchain using Ethers.js

### BYTEDANCE | VIDEO ARCHITECTURE - DATA ENGINEERING INTERN

May 2021 - Aug 2021 | Singapore

- Proposed and implemented data processing jobs to reduce storage requirements by a factor of 1000
- Developed monitoring alerts using Bosun to supervise stability of data streams.
- Created serverless functions to support video archive service
- Backend development to enhance implementation of video deletion architecture

## PROJECTS

### EATWHAT.ONE | PERSONAL PROJECT

Jun 2021 - Jul 2021

- Developed an end-to-end deep learning based solution that recommends restaurants based on user input query
- Built REST API with a task queue layer to efficiently process incoming queries on the backend
- Orchestrated backend resources with Kubernetes on Google Kubernetes Engine
- Developed web app using React and TypeScript

## AWARDS

### DSTA BRAINHACK 1<sup>st</sup>/92

Jul 2020

- Implemented transfer learning to create object detection models.
- Developed code logic and applied object detection models in a robot to autonomously identify objects, navigate obstacles and retrieve target