# **Personal Particular**

Name: Ming-Yi Lai (Melson Lai)

Gender: Male
Date of Birth: 1997/08
Nationality: Taiwan
Conscription Status: Served

Language: Mandarin, English (TOEFL iBT 104)

# **Programming Skill**

Programming Languages: C/C++, Bash, Python, Go, Perl Development Tools: GNU Linux, Docker, GDB

### **Contact Information**

Email: ming-yi.lai [at] mymlai.com

#### **Education**

# M.Eng in Computer Science

2019/07-2021/07

National Tsing Hua University

Hsinchu, Taiwan

- + Thesis: Accelerate Mobile Machine Learning Inferences with Combination of Machine Learning Runtimes
- + Advisor: Prof. Jeng-Kuen Lee

# B.Eng in Computer Science

**2015/09-2019/06** Hsinchu, Taiwan

National Tsing Hua University

Senior High School

2012/09-2015/06

Tainan First Senior High School Tainan, Taiwan

# Working Experience

Synology 2021/09-2023/05

**Product Developer** 

Taipei, Taiwan

- + Design highly efficient software systems using multithread & multiprocess in C++
- + Develop customized file systems using the VFS layer in Linux kernel
- + Deliver cloud backend services with Go, gRPC, Redis, TiDB, etc.

PeakHills Group 2021/04-2021/08 Engineer Hsinchu, Taiwan

+ Customize TVM AI compiler & runtime

+ Add VeriSilicon TIM-VX support to TVM

MediaTek
Internship
Superior S

+ Enable MLIR codegen for TVM utilizing Tensor IR

ITRI CITC
Internship

2017/07-2018/05
Hsinchu, Taiwan

+ Study how to perform distributed deep learning training

+ Study the performance factor of distributed deep learning frameworks (TensorFlow, PyTorch)

# **Research and Project**

#### **Enabling Android NNAPI Flow for TVM Runtime**

2020/08

Ming-Yi Lai, Chia-Yu Sung, Jenq-Kuen Lee, and Ming-Yu Hung

(Virtual Conference)

- + Published in ICPP EMS 2020
- + Devise algorithm to partition machine learning models to TVM/NNAPI AI compiler & runtime
- + Convert TVM Relay IR to NNAPI equivalence

#### **Deep Learning Cloud Service**

2017/07-2018/07

NTHU CS Bachelor Final Year Project

Hsinchu, Taiwan

- + Use OpenStack Horizon (Diango) to create a WebUI
- + Incorporate OpenStack Swift, PostgreSQL, Kubernetes and TensorFlow as backend to enable semi-automatic deep learning training and inference

#### **Taiwan Student Cluster Competition**

2017/03-09

NTHU Delegation Member

Hsinchu, Taiwan

- + Win the second prize with significant edge over other competitors
- + Compile hardware-specific distributed software
- + Automate competition process with Bash and Python scripts

## School Experience

**Teaching Assistant of Compiler Design** 

2021/03-2021/06 2020/03-2020/06

National Tsing Hua University

Hsinchu, Taiwan

+ Hands-on with Lex and Yacc

Study Abroad: Undergraduate Exchange

2018/08-2019/05

Nanyang Technological University

Singapore

# Job Expectation / Preference

#### **Date of Availability**

1 week after offer confirmed

#### **Preferred Location**

Hsinchu, Taiwan