# **KUAN-WEI HO**

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### MOTIVATION AND INTERESTS

Looking for a master degree in computer science related study in a prestigious university. Interested in data science, machine learning (ML), deep learning (DL), natural language processing (NLP), computer vision (CV), robotics and their applications.

### **EDUCATION**

### National Tsing Hua University

Sep. 2014 - Jun. 2018

B.Sc. in Computer Science

### RELEVANT COURSES

**Core Courses** 

Calculus

Discrete Mathematics

Data Structures

Linear Algebra

Probability

Computer Architecture

Operating Systems

Design and Analysis of Algorithms

### Other Courses

Introduction to Graphic Programming & Applications

Scientific Computing

Large-Scale Machine Learning

Computer Graphics

Compiler Design

Software Engineering

The Cutting Edge of Deep Learning

Natural Language Processing Lab.

#### PROFESSIONAL EXPERIENCE

NVIDIA
AI Developer Technology Engineer Intern

Aug. 2018 - PRESENT

Taipei, Taiwan

- · Study, develop and perform in-depth analysis and optimization of cutting-edge techniques in deep learning especially object detection and semantic segmentation methodologies on current and nextgeneration GPU architectures
- · Work with mentors on understanding the current and future problems the key customers are solving and providing best AI solutions using GPUs
- · Collaborate closely with the architecture, research, libraries, tools, and system software teams at NVIDIA to influence the design of next-generation architectures, software platforms, and programming models

#### Elsa Lab, National Tsing Hua University

Feb. 2018 - PRESENT

Hsinchu, Taiwan

Research Assistant (Supervised by Prof. Chun-Yi Lee)

- · Conduct research on topics regarding video segmentation, robotics and deep reinforcement learning
- · Responsible for methodology design and experiments implementations, evaluations and visualizations
- · Responsible for editing and writing papers aimed at international conferences and journals in computer science related area especially regrading artificial intelligence and deep learning

Alfred Labs Inc. Dec. 2017 - Jun. 2018

Data Science and Machine Learning Intern

Taipei, Taiwan

- · Alfred Camera is #1 mobile app service on App Store and Google Play in home security category in the United States. It turns old smartphones into surveillance cameras and offers services for over 7 million families around the world
- · Conducted research on deep learning frameworks for mobile phones (e.g. TensorFlow Lite, TensorFlow Mobile, CoreML), and computationally efficient image classification, object detection, and face recognition methodologies implemented under those frameworks
- · Conducted research on cutting-edge deep learning frameworks and toolkits designed for mobile embedded devices (e.g. Raspberry Pi), such as Intel Movidius Neural Compute Stick and Google AIY Vision Kit

## Courses: Introduction to Programming, NTHU

Sep. 2017 - Jun. 2018

Teaching Assistant

Hsinchu, Taiwan

- · Assisted Prof. Hwann-Tzong Chen in teaching and relevant tasks
- $\cdot$  Designed exams and built course project frameworks regarding basic C/C++ programming, data structures and algorithms
- · Answered questions during class time, office hour or on on-line course forum

### High5.ai

Jul. 2017 - Oct. 2017

Software Developer Intern

Taipei, Taiwan

- · High5.ai is the biggest B2B startup supporting customer service with AI chatbot on Facebook Messenger for more than 1000 customers in Taiwan and Southeast Asia, and also an excellent member of AppWorks #14 Accelerator program
- · Focus on AI chatbot's production efficiency and research regarding semantic analysis and text generation
- · Solved technical issues of the product and maintained the operation of the service

### AI Lab, National Tsing Hua University

Feb. 2017 - Jan. 2018

Undergraduate Researcher (Supervised by Prof. Von-Wun Soo)

Hsinchu, Taiwan

- · Built an AI agent telling Chinese stories based on MIT Media Lab's ConceptNet 5 by Monte Carlo tree search and sequence-to-sequence learning
- · Conducted research on Monte Carlo tree search, AI storyteller agent model, Chinese linguistic, natural language processing and deep learning especially neural machine translation and text generation

#### **PUBLICATION**

Hsuan-Kung Yang, An-Chieh Cheng\*, **Kuan-Wei Ho**\*, Tsu-Jui Fu, Chun-Yi Lee, *Visual Relationship Prediction via Label Clustering and Incorporation of Depth Information*, 1st Person in Context (PIC) Workshop, European Conference on Computer Vision (ECCV), 2018.

\* indicates equal contribution

(ECCV is a top conference in computer vision)

### AWARDS AND HONORS

2nd Place in ECCV 2018 Workshop and Challenge: Person In Context (PIC), 2018.

3rd Prize in Final Project Competition of NTHU The Cutting Edge of Deep Learning, 2017.

#### **SKILLS**

Programming Languages C, C++, Python, Java, Matlab

Frameworks & Tools LaTex, Git, Flask, OpenGL, Android Studio

Data Science Frameworks NumPy, Pandas, Gensim, OpenCV, NLTK, Scikit-learn, Keras, TensorFlow,

PyTorch

Toolkits Raspberry Pi, Google AIY Vision Kit, Intel Movidius NCS

OS environment Windows, Linux, Mac OS

Languages Native - Chinese, Proficient - English

### LEADERSHIP EXPERIENCE

### 2016 NTHU CS Summer Camp

Feb. 2016 - Aug. 2016

Hsinchu, Taiwan

Cheif Finance Officer

Public Relations

· Managed finance flow of the camp

· Coordinated and arranged key events, activities, and personnel for the camp

### NTHU CS Student Association

Sep. 2015 - Jun. 2016

Hsinchu, Taiwan

· Advertising activities for the CS department and Student Association by making posters, composing articles and publishing brochures

- $\cdot$  Contacted business partners and raised funds for the events
- · Arranged company visits for CS students