AI ENGINEER · JUNIOR BACKEND ENGINEE

"You are what you measure."

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# **Education**

### **National Tsing Hua University**

M.S. IN COMPUTER SCIENCE

• Networking and Multimedia System Lab with Dr. Cheng-Hsin, Hsu

- Thesis: Building a Next-Generation Cloud Gaming Platform with Planar Map Streaming and Distributed Rendering
- Graduated in one year with GPA 4.03/4.3 and four pulications

Jan. 2016 - Jun. 2017

Hsinchu, Taiwan



# **Experience**

### **Umbo Computer Vision**

AI ENGINEER

• Build an almost realtime API server for model evaluation with a specialized designed cache.

- · Build data sampler, data collection cronjob and deploy on k8s to collect the up-to-date customer data.
- Build machine learning pipeline using k8s-based kubeflow pipeline.
- Using AWS Lambda to serve as an event-based CV component, connecting edge device with cloud service. Introduce
  xray, elasticsearch, and New Relic to investigate computation bottleneck and reduce the runtime from 3.2s to less than
  1s.
- Co-work with Infra team members to build CI/CD, loging, monitoring for Lambda service. Leverage New Relic as logging
  system for faster searching compared with AWS CloudWatch. Use Elasticsearch plus grafana for metrics visualization and
  alerting.



Jul. 2018 - Present

Taipei, Taiwan

#### Simula Research Laboratory

RESEARCH TRAINEE

• Supervisor: Prof. Carsten Griwodz

- Project: Building Site Inspection Supported by Augmented Reality
- Survey, evaluate and improve state-of-the-art 3D reconstruction and matching
- Co-work with opensource project AliceVision. Propose issues and possible improvements through real-world 3D reconstruction experiment.

# simula

Oslo, Norway

Jal. 2017 - Dec. 2017

### Skills\_\_\_\_

**Programming** Python, C++

**Back-end** REST API, MySQL, Redis, MangoDB

**DevOps** AWS, GCP, Jenkins, Terraform, Grafana, New Relic, Elasticsearch

**Languages** English, Germany

# **Extracurricular Activity**

## Women Who Code Nov. 2018 - PRESENT

SPEAKER/VOLUNTEER

- Host two python tutorials for begineers with 40 audience each.
- Give a 30 mins talk titled: My First CV Deep Learning Project on Book Club
- Help and answer questions on MLCC for women 2019.



**PyCon TW 2020**Mar. 2020 - PRESENT

SPONSOR TEAM MEMBER

- Contact potential company and provide custom sponsor packages.
- Contact other pycon community to discuss possible sponsor packages when the conference need to go virtual due to COVID-19.



MAY 21, 2020

### **Honors & Awards**

Nov. 2016 Scholarship of Pan Wen Yuan Culture Foundation

Aug. 2016 ACM Multimedia 2016 Travel Grant

Aug. 2016 Google Anita Borg Memorial Scholarship Asia Pacic

Sep. 2014 Scholarship for Excellent Students to Study Abroad

Taipei, Taiwan

Amsterdam, Netherlands

Hyderabad, India Taipei, Taiwan

# **Publications**

#### JOURNAL ARTICLES

Delay-sensitive video computing in the cloud: A survey

Maha Abdallah, Carsten Griwodz, Kuan-Ta Chen, Gwendal Simon, Pin-Chun Wang, Cheng-Hsin Hsu

ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM) 14.3s (2018) pp. 1-29. ACM New York, NY, USA, 2018

### **CONFERENCE PROCEEDINGS**

A Scalable Video Conferencing System Using Cached Facial Expressions

Fang-Yu Shih, Ching-Ling Fan, Pin-Chun Wang, Cheng-Hsin Hsu

International Conference on Multimedia Modeling, 2017

Optimizing next-generation cloud gaming platforms with planar map streaming and distributed rendering

Pin-Chun Wang, Apollo I Ellis, John C Hart, Cheng-Hsin Hsu

2017 15th Annual Workshop on Network and Systems Support for Games (NetGames), 2017

Interference-aware video streaming over crowded unlicensed spectrum

Ching-Ling Fan, Daniel Huang, Pin-Chun Wang, Cheng-Hsin Hsu

2016 18th Asia-Pacific Network Operations and Management Symposium (APNOMS), 2016

Towards ultra-low-bitrate video conferencing using facial landmarks

 ${\sf Pin-Chun\,Wang,\,Ching-Ling\,Fan,\,Chun-Ying\,Huang,\,Kuan-Ta\,Chen,\,Cheng-Hsin\,Hsu}$ 

Proceedings of the 24th ACM international conference on Multimedia, 2016

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