

# Pin Chun Wang

AI ENGINEER · JUNIOR BACKEND ENGINEER

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"You are what you measure."

## Education

### National Tsing Hua University

M.S. IN COMPUTER SCIENCE

Sep. 2016 - Jun. 2017

Hsinchu, Taiwan

- 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 publications



## Experience

### Umbo Computer Vision

AI ENGINEER

Jul. 2018 - Present

Taipei, Taiwan

- 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, logging, 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.



### Simula Research Laboratory

RESEARCH TRAINEE

Jul. 2017 - Dec. 2017

Oslo, Norway

- 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.

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## Skills

<b>Programming</b>	Python, C++
<b>Back-end</b>	REST API, MySQL, Redis, MongoDB
<b>DevOps</b>	AWS, GCP, Jenkins, Terraform, Grafana, New Relic, Elasticsearch
<b>Languages</b>	English, German

## Extracurricular Activity

### Women Who Code

SPEAKER/VOLUNTEER

Nov. 2018 - PRESENT

- Host two python tutorials for beginners 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

SPONSOR TEAM MEMBER

Mar. 2020 - PRESENT

- 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.



## Honors & Awards

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Nov. 2016 **Scholarship of Pan Wen Yuan Culture Foundation**

Taipei, Taiwan

Aug. 2016 **ACM Multimedia 2016 Travel Grant**

Amsterdam, Netherlands

Aug. 2016 **Google Anita Borg Memorial Scholarship Asia Pacific**

Hyderabad, India

Sep. 2014 **Scholarship for Excellent Students to Study Abroad**

Taipei, Taiwan

## Publications

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### 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

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