

# Chih-ho Hsu

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## Research Interests

Wireless Communications and Networking: Edge Computing, Social Network, Multimedia Streaming, SDN, Virtual Reality.

## Education

### National Taiwan University (NTU)

Sep. 2016 – Jan. 2021

- Bachelor of Science in Electrical Engineering, GPA 3.3/4.0 (Overall)

### Taipei Municipal Chien Kuo High School (暫時充數 未來會拿掉)

Sep. 2013 – Jun. 2016

## Publications

### Journal Papers

- [1] 2<sup>st</sup> author, “Collaborative Social-Aware and QoE-Driven Video Caching and Adaptation in Edge Network,” in *IEEE Transaction on Multimedia*, 2020. [\[PDF\]](#)
- [2] 3<sup>st</sup> author, “Virtual Network Embedding With Dynamic Speed Switching Orchestration in Edge Network,” in *IEEE Access*, vol. 8, pp. 84753-84768, 2020. [\[PDF\]](#)
- [3] 3<sup>st</sup> author, “Management and Orchestration of Edge Computing: A survey”, *under preparation*.
- [4] 1<sup>st</sup> author, “Hybrid Adaptive Learning Framework for Parallel Task Offloading in Edge network”, *under preparation*.

### Conference Papers

- [5] 1<sup>st</sup> author, “Entropy-based QoS Routing for Software-Defined Edge Network,” in *IEEE Globecom*, 2020.
- [6] 3<sup>st</sup> author, “Satellite-UAV-MEC Collaborative Architecture for Task Offloading in Vehicular Networks,” in *IEEE Globecom*, 2020.
- [7] 1<sup>st</sup> author, “MEC-Assisted FoV-Aware and QoE-Driven Adaptive 360° Video Streaming for Virtual Reality,” 2020.
- [8] 1<sup>st</sup> author, “QoE-Driven Interest-Based Video Caching and Adaptation in 5G Mobile Edge Network,” *poster in Taiwan Telecommunication Annual Symposium*, 2020.

## Experiences

### Wireless Mobile Network Laboratory, NTU

Feb. – Present

#### Research Assistant

- Studied emerging techniques in 5G: Edge Computing, NFV, SDN, NOMA, NDN, authored/coauthored 3 journal papers [1-3] and 3 conference papers [5-7].
- Participate in several cooperative research projects: B5G smart cross-layer multi-access edge computing

### Cinnamon AI, Tokyo, Japan

Jul. – Aug. 2019

#### Summer Internship

- Investigated & implemented state-of-the-art CNNs to enhance the performance of object recognition

### Broadmission Technology, Taipei, Taiwan

Jan. – Jul. 2019

#### Software engineer (part-time)

- Designed functional Chatbot: customized control interface, user classification & customized response
- Implemented Hygiea for DevOps: automated and customized CICD tracking [\[link\]](#)
- Designed home supervision system: webcam streaming platform, object recognition & anomaly detection

### Foxconn Technology, Taipei, Taiwan

Sep. 2018 – Jul. 2019

#### Internship

- Developed and tested ONAP: network microservices instantiation & policy-driven lifecycle management

### Advanced Material Research Group, NTU

Feb. – Aug. 2017

#### Research Assistant

- Set simulation environment for Plant Factory: automatic temperature, moisture, light, water, gas control

## Skills

**Programming:** Python, C++, Java, PHP, JavaScript, C#, MATLAB

**Framework:** Vue.js, Django, Flask, OpenCV, Tensorflow, MySQL, AWS, Azure, ONAP, OpenStack, Hygieia, Jenkins

**Software:** Android Studio, SolidWorks, Unity, Arduino, Quartus II, PSpice, LabVIEW

**Languages:** Mandarin (native), English (fluent), Japanese (conversational)