# Tsu-Jui Fu

## Education

2014–2018 B.Sc. at National Tsing-Hua University, Computer Science, Hsinchu, Taiwan.

GPA: 3.61/4.30 (Overall), 3.72/4.30 (Major)

Ranking:  $48/164 \ (\sim top \ 30\%)$ 

Advisor: Shan-Hung Wu, Chun-Yi Lee, and Hwann-Tzong Chen

## Experience

2017-Present Academia Sinica, Research Assistant, Taipei, Taiwan.

Advisor: Wei-Yun Ma

- Long document comprehension and knowledge graph extraction.
- Automatic QA and textual entailment.
- 2017-2018 NTHU ElsaLab, Research Assistant, Hsinchu, Taiwan.

Advisor: Chun-Yi Lee

- Real-time video segmentation.
- Navigation in 360 street view.
- 2017–2018 Umbo Computer Vision Inc., Research Collaboration, Taipei, Taiwan.

Advisor: Hwann-Tzong Chen

- Human pose estimation, video summarization, and image motion deblurring.
- Summer 2017 Academia Sinica, Research Intern, Taipei, Taiwan.

Advisor: Wei-Yun Ma

- Goal-driven dialogue system.

### Publications

2018 Speed Reading: Learning to Read ForBackward via Shuttle.

Tsu-Jui Fu and Wei-Yun Ma

Conference on Empirical Methods in Natural Language Processing (EMNLP), 2018 (long paper)

2018 Dynamic Video Segmentation Network.

Yu-Syuan Xu, **Tsu-Jui Fu**, Hsuan-Kung Yang, and Chun-Yi Lee IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2018

2018 Region-Semantics Preserving Image Synthesis.

Kang-Jun Liu, **Tsu-Jui Fu**, and Shan-Hung Wu Asian Conference on Computer Vision (**ACCV**), 2018

2018 Diversity-Driven Exploration Strategy for Deep Reinforcement Learning.

Zhang-Wei Hong, Tzu-Yun Shann, Shih-Yang Su, Yi-Hsiang Chang, **Tsu-Jui Fu**, and Chun-Yi Lee Conference on Neural Information Processing Systems (**NIPS**), 2018

2018 Visual Relationship Prediction via Label Clustering and Incorporation of Depth.

Hsuan-Kung Yang, An-Chieh Cheng, Kuan-Wei Ho, **Tsu-Jui Fu**, and Chun-Yi Lee European Conference on Computer Vision (**ECCV**), 2018 (workshop)

2018 GraphRel: Relation Extraction via Graph Convolutional Network.

**Tsu-Jui Fu**, Peng-Hsuan Li, and Wei-Yun Ma Submitted

2018 Dialogue-based Diverse Travel Itinerary Recommendation System via Path Sampling.

**Tsu-Jui Fu**, Yu-Han Chen, Huan-Cheng Chang, and Wei-Yun Ma Submitted

2018 Attend, Cut, and Judge: Video Summarization with Attentive and Adversarial Learning.

 $\boldsymbol{\mathsf{Tsu}\text{-}\mathsf{Jui}}\ \boldsymbol{\mathsf{Fu}}$  and Hwann-Tzong Chen

Submitted

## 2018 Embedding Cluster for Accelerating Semantic Video Segmentation.

**Tsu-Jui Fu\***, Hsuan-Kung Yang\*, Kuan-Wei Ho, Po-Han Chiang and Chun-Yi Lee Submitted

#### 2018 Adversarial Exploration Strategy for Self-Supervised Imitation Learning.

Zhang-Wei Hong, **Tsu-Jui Fu**, Tzu-Yun Shann, Yi-Hsiang Chang, Dong-Ying Kuo, and Chun-Yi Lee Submitted

## Selected Projects

#### Fall 2017 Native Ads.

An ad matching and generation system to match commodity and blog post along with sentences generated for sale promotion.

- Selected as best popularity award of senior project contest.

#### Fall 2017 Pose Estimation with Human Segmentation Enhancement.

Joint learning of pose estimation and human segmentation to give bottom-up pose model a body structure concept, reducing false-positive prediction.

- Selected as the best final project of EE648500 Computer Vision.

## Summer 2017 Travel Itinerary Recommendation Chatbot.

A dialogue system which converses with user, extracts their preference and recommends a tailor-made travel itinerary.

- Selected as silver medal of PIXENET chatbot competition.

## Fall 2016 Give Me a God Reply.

Automatic reply system on Dcard forum.

- Selected as judges' and best popularity award of senior project contest.

## Awards

Summer 2018 Second Place, Person In Context Challenge, ECCV 2018.

Awarded to team with excellent benchmark performance of PIC challenge

Spring 2018 **Outstanding Students Conference Travel Grant**, Foundation For The Advancement of Outstanding Scholarship (FAOS), Taiwan.

Providing travel grants to outstanding students to participate in international academic conferences

Fall 2017 Silver Medal, PIXNET Chatbot Competition, PIXENET Inc., Taiwan.

Awarded to team with excellent implementation and demo of chatbot

2016, 2017 First Place, MeiChu Hackathon, National Chiao-Tung University.

Awarded to team with the best implementation and demo of hackathon

2016, 2017 **Judges' and Best Popularity Award**, *Senior Project Contest*, National Tsing-Hua University. Awarded to student with judges' award and the best popularity of project contest

Fall 2015 Third Place, Open Source Competition, National Tsing-Hua University.

Awarded to team with big open source contribution

Fall 2014 Presidential Award, Computer Science, National Tsing-Hua University.

Awarded to student with the top 5% GPA for that semester

Fall 2013 Third Place, Taipei High School Informatics Competition, Taipei.

Awarded to student in algorithm and data structure competition

Fall 2012 First Place, Taipei High School Software Design Competition, Taipei.

Awarded to student in algorithm and data structure competition

## Teaching

- Summer 2018 **Teaching Assistant**, Vision and Learning Summer School, National Tsing-Hua University.
  - Spring 2018 Teaching Assistant, Nvidia Deep Learning Workshop, National Central University.
    - Fall 2017 **Teaching Assistant**, Deep Learning, National Tsing-Hua University.
    - Fall 2017 **Teaching Assistant**, *Hardware Design and Lab*, National Tsing-Hua University.

## Programming Skills

Tensorflow, PyTorch, Torch, Keras, C, C++, Python, Java, Swift, Objective-C, Android, HTML, CSS, JavaScript.