

Education

University of California San Diego (UCSD) – Jacobs School of Engineering

La Jolla, CA, USA

M.S. IN ELECTRICAL AND COMPUTER ENGINEERING

Exp. Jun. 2020

- Average GPA: 4.0/4.0

National Taiwan University (NTU)

Taipei, Taiwan

B.S. IN ELECTRICAL ENGINEERING

Sep. 2013 - Jan. 2018

- Average GPA: 4.14/4.3

Skills

Programming

C++, Python – scikit-learn/ Keras/ Tensorflow, Matlab, Robot Operating System (ROS), JavaScript (back-end), Arduino

Internships

Research Intern, AI Center at Inventec Corp.

Taipei, Taiwan

PROJECT: INDOOR NAVIGATION

Jul. 2018 - Sep. 2018

- Developed robotic control system under ROS framework, successfully achieving cloud training and evaluation
- Trained and tested models using CNN deep reinforcement learning in Tensorflow, reaching success under virtual environment

Software Development Intern, Dell Technology

Taipei, Taiwan

PROJECT: TOOL DEVELOPMENT

Jul. 2016 - Aug. 2016

- Designed the architecture of software tools, to speed up debugging process for server development
- Created debugging tools from back-end algorithm to front-end interface in python, in use for over 1 year

Research & Projects

Research Assistant, Visual Computing in UCSD (Prof. Manmohan Chandraker, Prof. Hao Su)

La Jolla, CA, USA

PROJECT: DEEP STRUCTURE FROM MOTION (SFM)

Oct. 2018 - Current

- Designed deep learning networks for feature detection or description in SFM pipeline, optimizing using self-supervised method

Researcher, Media IC & System Lab (Po-Chen Wu, Prof. Shao-Yi Chien)

Taipei, Taiwan

PROJECT: POSE TRACKING FROM A PLANAR TARGET

Nov. 2017 - Jan. 2018

- Designed "Particle Filter" to solve the problem of pose ambiguity, better tracking planar target in augmented reality (AR)
- Experimented algorithm on Object Pose Tracking (OPT) Dataset, benchmarking with state-of-the-art "Kalman Filter" method

Project, Machine Learning (Prof. Hung-yi Lee)

Taipei, Taiwan

PROJECT: STACK EXCHANGE TAGS COMPETITION ON KAGGLE

Nov. 2016 - Jan. 2017

- Devised automatic tag prediction from given titles and answers, learning connections between articles
- Constructed unsupervised learning model (TF-IDF) and Part-Of-Speech method in Python, achieving top 25% in 380 participants

Project, HackNTU Hardware Hackathon Competition

Taipei, Taiwan

PROJECT: CAR SAFETY SYSTEM

Mar. 2017

- Invented system to reduce casualties in accidents within 24 hours, winning Enterprise Award from FET & Gatec
- Created prototype of safe car using wood, Arduino, and Linkit, exhibiting 3 features in demo

Researcher, Media IC & System Lab (Prof. Shao-Yi Chien)

Taipei, Taiwan

PROJECT: ODOMETRY FOR IMPRECISE AUGMENTED REALITY (AR)

Feb. 2016 - Jun. 2017

- Developed multimedia method based on "ORB-SLAM", aiming to reduce power consumption for AR devices
- Experimented on SLAM with low-resolution image frames, achieving same RMSE loss on trajectory with 10% of original size
- Remodeled gyro's data into ORB-SLAM as initial transformation matrix for localization, visualizing and interpreting the results

Leadership

President of Aboriginal Service Club, NTU (Prof. Chien-Mo Li)

Taipei, Taiwan

LEADER OF PUBLIC RELATIONS/ VICE PRESIDENT/ PRESIDENT

Sep. 2014 - Jul. 2017

- Arranged winter/summer camps in aboriginal villages in remote mountains of Taiwan, exposing primary school students to science
- Organized volunteer training with 60 teammates as club president for 6 months, operating 14 day services
- Initiated effective communication and creative thinking between teammates, shaping positive environment in the club

Honors & Awards

2017	Certificate of Altruistic Award , NTU	Taipei, Taiwan
2016	Scholarship (USD\$5,000) , Lin, Hsiung-Chen Foundation	Taipei, Taiwan
2014	Certification of Presidential Award , NTU (top 5% of all NTUEE students)	Taipei, Taiwan