

EDUCATION

Ph.D. in Computer Science

Master of Engineering in Multimedia and Signal Processing
Bachelor of Engineering in Electrical Engineering

University of Adelaide, Australia

Chulalongkorn University, Bangkok

Apr 2015 - Dec 2018

May 2011- Nov 2012

King Mongkut University of Technology North Bangkok May 2007- March 2011

EXPERIENCE

Lecturer, Chulalongkorn University, Thailand

Aug 2023 - Present

- Lead research team on AI-solution for solar energy.
- Teaching. Statistical inference and modeling, Estimation theory, Programming for EE students.

AI Engineer, Huawei, Japan.

Nov 2022 – Mar 2023

- Lead the feasibility studies and planning for improving the wide-angle distortion correction and face distortion correction based on HUAWEI P50.
- Enable collaboration, while utilizing the existing resources (3D facial datasets) across the teams for solving the current issues.

Core Researcher, KDDI Research, Inc., Japan

Sep 2019 - Nov 2022

- Lead research activities in visual positioning service (VPS), led to **6 patent applications*** & **3 publications** (see [publication details](#)).
- Research and develop deep learning, i.e., Transformers & GNN-based methods for VPS (PyTorch & GPU parallel computing).
- Supervise associate research engineers on 3D computer vision & object recognition (since *June 2021*).
- Support KDDI headquarter, including analyzing and solving problems in the products of VPS, *website*: [Time-Space-KDDI](#).

Signal Processing Assistant, Minelab Electronics Pty Ltd., SA, Australia

Aug 2018 - Aug 2019

- Designed handcrafted features and implemented a learning-based method for target's depth estimation of metal detectors.
- Analyzed the impact of parameter tuning and fine tune parameters for the SLAM algorithm in VINS (C++).
- Conducted exploratory study and implemented machine learning, i.e, CNN, PCA, XGBoost, and DBSCAN, in Python
- Posted and resolved +40 engineering tasks.

Research Engineer, Geo-Informatics and Space Technology Development Agency, Thailand

Feb 2014 - Feb 2015

- Analyzed, addressed, and implemented image processing algorithms in MATLAB for applications in geo-informatics.
- Implemented noise removal techniques for ISAR images from RADARSAT-2 that gives PSNR improvement of 4.2 dB.
- Implemented 5 GUIs for analyzing and predicting the productivity of rice growth through monitoring cameras.

Machine Learning Consultant, Aczept Technology Co., Ltd., Thailand

Nov 2012 - Jun 2013

- Developed license plate recognition to enhance the Ministry of Transportation's surveillance system.

SELECTED PUBLICATIONS

ORCID ID: <https://orcid.org/0000-0001-7369-9711>

- ❖ *Deep-learning-based and near real-time solar irradiance map using Himawari-8 satellite imageries (IF6+, Q1, Solar Energy 2025)* [[Paper](#)]
- ❖ *Thailand solar irradiance map: Analysis of tree-based models (PMAPS 2024)* [[Paper](#)]
- ❖ *Recursive Rendering of 2D Images for Accurate Pose Estimation in a 3D Mesh Map (Acceptance Rate 20% SIGGRAPH Asia, 2022)* [[Paper](#)]
- ❖ *Efficient Linear Attention for Fast and Accurate Keypoint Matching (Acceptance Rate 17% ICMR, 2022)* [[Paper](#)]
- ❖ *Learning of Low-level Feature Keypoints for Accurate and Robust Detection, (Acceptance Rate 30% WACV 2021)* [[CVF-paper](#)]
- ❖ *Explainable Knowledge Distillation for On-device Chest X-Ray Classification (IF3+, Q1[‡], IEEE Transactions on Computational Biology and Bioinformatics 2022)*
- ❖ *One-step Adaptive Markov Random Field for Structured Compressive Sensing (IF4+, Q1^{‡‡}, Signal Processing, 2019)* [[Elsevier](#)]
- ❖ *An Adaptive Markov Random Field for Structured Compressive Sensing (IF10+, Q1^{‡‡}, IEEE Transactions on Image Processing, 2018)* [[Arxiv](#)]
- ❖ *Adaptive Markov Random Fields for Structured Compressive Sensing* [[Doctoral Thesis](#)] 2018

‡ denotes Q1 in Applied Mathematics; ‡‡ denotes Q1 in Computer Vision and Pattern Recognition.

AWARDS

- ❖ Research Award from the Institute of Image Information and Television Engineers, *Japan*, 2021.
- ❖ Postgraduate Research Scholarship (33K+25K AUD per annum), the University of Adelaide, *Australia*, 2015-2018.
- ❖ Royal Thai Government Scholarship for postgraduate studies in the USA (45K+24K USD per annum x 6 years), 2015---declined.
- ❖ Golden Medal awarded by His Royal Highness Crown Prince Vajiralongkorn (*King Rama X of Thailand*), 2011.