Dai-Yan Ji

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Experience

Instrument & Electricity Senior Engineer 2017 — 2021
China American Petrochemical Inc., British Petroleum Group Subsidiary, Taiwan.
- Applications of artificial intelligence in industry 4.0, smart manufacturing

Algorithm Researcher 2015 — 2017
Machine Learning and Biometric Recognition Academy, Taiwan.
- Research deep learning related algorithm, develop iris recognition system

Algorithm Development & Testing Engineer 2013 — 2015
Advanced Analog Technology Inc., Taiwan.
- Develop algorithm applied to IC design

Research Assistant 2012 — 2013
Feng Chia University, Taiwan.
- Develop adaptive algorithm on headset

Engineering Intern 2010 — 2011
Merry Electronics Technology Inc., Taiwan.
- Develop active noise control algorithm

Education

Ph.D. in Mechanical Engineering, University of Cincinnati, USA. 2021 — Present
- Major in industrial AI, PHM, Deep Learning

M.S. in Communications Engineering, Feng Chia University, Taiwan. 2010 — 2012
- Major in machine learning, biometric recognition, optimization algorithm

B.S. in Electronic Engineering, Feng Chia University, Taiwan. 2005 — 2009
- Major in semiconductor manufacturing process, signal processing

Publications

Conference
- Bo-Ren Zheng, **Dai-Yan Ji**, and Yung-Hui Li, “Heterogeneous Iris Recognition Using Heterogeneous Eigeniris and Sparse Representation,” in 2014 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), no., pp.3764-3768, 4-9 May, 2014.
- **Dai-Yan Ji** and Ho-En Liao, “Active Control of Nonlinear Noise Process Using Sparse Kernel LMS Algorithm”, National Symposium on Telecommunications, 2012.

Patent
- Yung-Hui Li and **Dai-Yan Ji**, “Smart Door Lock”, China Patent No. 305926335S, 17 July, 2020 .
- Yung-Hui Li and **Dai-Yan Ji**, “Biometric Recognition System, Recognition Method, Storage Medium and Biometric Recognition Processing Chip”, Taiwan Patent No. 1547882, 01 Sep., 2016.

Awards

Champion, Reliability Group, British Petroleum, Taiwan. 2017

- Topic: CO2 analyzer's accuracy and reduce its deviation

Gold Medal, Invention & New Product Exposition (INPEX), Pittsburgh. 2016

- Develop iris recognition system applied to smart glasses

Fellowship, Feng Chia University, Taiwan. 2010 — 2012

- Distinguished graduate student

Excellent Volunteer, Feng Chia University, Taiwan. 2012

- Complete 332.5 hours volunteer service at counseling center

Research Interests

Control Valve Diagnostics (Emerson: AMS), Deep Learning, Computer Vision, Machine Learning, Industrial AI, PHM.

Computer Skills

Programming

- Python, C/C++, Java, Matlab

DL Platforms

- PyTorch

Languages

Chinese (Mother tongue), English (Intermediate)