

Jia-Wei Liao

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EDUCATION

- **National Taiwan University** Taiwan, Taipei
• *PhD of Computer Science and Information Engineering; CMLab; GPA: 4.3 / 4.3; September 2022 - present*
Research: Computer Vision, Deep Learning, and Optimization
Courses: Computer Vision, and Information Retrieval and Extraction
- **National Yang Ming Chiao Tung University** Taiwan, Hsinchu
• *Master of Applied Mathematics; GIMI Lab; GPA: 4.28 / 4.3; Ranking: 1 / 27 September 2020 - August 2022*
Research: Computer Vision, Deep Learning, Scientific Computing
Courses: Machine Learning, Data Mining, Data Science, Visual Recognition Deep Learning, Real Analysis, Advanced Probability, Matrix Computing, Numerical Partial Differential Equations, Numerical Optimization, and Computational Geometry
- **National Taiwan Normal University** Taiwan, Taipei
• *Bachelor of Mathematics with Educational Program; GPA: 4.06 / 4.3; Ranking: 3 / 89 August 2016 - June 2020*
Courses: Computer Programming, Data Structure, Numerical Analysis, Linear Algebra, Probability, Statistics, and Advanced Calculus

SKILLS SUMMARY

- **Programming Language:** Python, MATLAB, C, C++, SQL, MongoDB and LaTeX
- **Framework:** PyTorch, TensorFlow, Keras, and Scikit
- **Developer Tool:** Git, VS Code, Jupyter, and Vim

EXPERIENCE

- **Appier** Taiwan, Taipei
• *Data Analyst Internship in AiDeal ML Team August 2022 - present*
Work: Data Analysis, Feature Engineering, and Machine Learning
- **TMBA** Taiwan, Taipei
• *Member of Strategic Marketing Department and Program Trading Department July 2021 - present*
Content: Marketing Strategies, Data Analysis, Presentation, and Communication Skills and Quantitative Trading.
- **National Center for Theoretical Sciences** Taiwan, Taipei
• *Undergraduate Summer Research Project July 2020 - August 2020*

PROJECTS

- **Crop Image Recognition:** AI CUP 2022 Fall Competition. 🏆
- **Interpretive Information Labeling for Natural Language Processing:** AI CUP 2022 Fall Competition. 🏆
- **Low-power Lane Semantic Segmentation:** Machine Learning Final Project with MediaTek.
- **Contour Segmentation for Spread Through Air Spaces in Lung Adenocarcinoma:** AI CUP 2022 Spring Competition. 🏆
- **Supervised Learning for Few-Shot Orchid types Classification with Prior Guided Feature:** AI CUP 2022 Spring Competition. 🏆
- **Ultrasound Nerve Segmentation:** Kaggle Competition. 🏆
- **Visual Recognition using Deep Learning:** Classification, Detection, Instance Segmentation, and Super-resolution. 🏆
- **Sentiment Analysis of Food Reviews on Yelp Platform:** Data Science Final Project.
- **Low-rank Matrix Approximation for Recommender System:** Scientific Computing Final Project.
- **Mean Curvature Flow on Graphs for Image Denoising:** PDE for Image Process Final Project.
- **Sparse Dictionary Learning for Image Inpainting:** Optimization for Data Science Final Project.

HONORS AND AWARDS

- AI CUP 2022 Fall Competition Honorable Mention Award - *January 2023*.
- Diligent Doctoral Student Scholarship - *September 2022*.
- AI CUP 2022 Spring Competition Merit Award and MATLAB Outstanding Application First Price - *July 2022*.
- TWSIAM 2022 Paper Poster Contest Second Place Award: Achieve top 2 in master's group - *July 2022*. 🏆
- Chou-Hung-Ching Scholarship (Academia Sinica): Up to 12 students admitted each year - *December 2021*. 🏆
- Hu-Dun-Fu Scholarship: Achieve top 1 in the college of NTU, NTHU, NYCU, and NCU - *November 2021*.
- Academic Excellence Award: Achieve top 1 in the college of mathematics of NTNU and NYCU.
- Ministry of Education Scholarship: Achieve top 1 in the college of mathematics of NTNU - *October 2020*.

PUBLICATIONS

- **J.-W. Liao, T.-M. Huang, T. Li, W.-W. Lin, H. Wang, and S.-T. Yau, An UNet-based Brain Tumor Segmentation Framework via Optimal Mass Transportation Pre-processing, MICCAI 2022 Conference.**