Pin-Hua Lee

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EDUCATION

Bachelor of Arts in Economics, National Taiwan University (NTU) Sep. 2018 – present

- Cumulative GPA: 3.95/4.3 (Last 60 credits GPA: 4.1/4.3)
- CS-related GPA: 4.11/4.30
  - **Undergraduate-level courses**: Data Structures and Advanced Program Design, Algorithms, Discrete Mathematics, Linear Algebra, Statistics, Operating Systems, Web Programming, Computer Architecture, Introduction to Computer Networks, Machine Learning
  - **Graduate-level courses**: Computer Vision, Deep Learning for Computer Vision, Big Data and Business Analytics

HONORS & AWARDS

- Undergraduate Student Research Grant, National Science and Technology Council 2022
- Nan Shan Life Insurance Elite Scholarship (Given to Top3 students) 2021

PUBLICATIONS

- L.-C. Cheng, S.-C. Hsu, **P.-H. Lee**, H.-C. Lee, C.-H. Lin, J.-C. Chen, and C.-Y. Wang, "KinStyle: A Strong Baseline Photorealistic Kinship Face Synthesis with An Optimized StyleGAN Encoder," Asian Conference on Computer Vision (ACCV), pp. 4479-4494, Dec., 2022.
- **P.-H. Lee**, A. W.-Y. Wang, and C.-H. Hsia, "Music Emotion Analysis Based on Deep Learning Techniques for Streaming Platforms," IEEE International Conference on Knowledge Innovation and Invention (ICKII), Jul., 2022, to be published.
- **P.-H. Lee**, and C.-H. Hsia, "Improved multi-reference makeup transfer with localized attention mechanism," SPIE International Workshop on Advanced Imaging Technology (IWAIT), vol. 12177, pp. 376-379, Apr., 2022.

RESEARCH EXPERIENCE

Research Assistant, Academia Sinica Feb. 2022 – present

- Advisors: Prof. Jun-Cheng Chen & Chih-Yu Wang
- Performed high-fidelity kinship face synthesis with an optimized encoder architecture, achieving an AUC score of 0.8871, outperforming prior art by 0.2151
- Accepted as an oral presentation by the Asia Conference on Computer Vision 2022

Undergraduate Student Research Feb. 2021 – Jan. 2022

Funded by the National Science and Technology Council (NSTC)

- Advisor: Prof. Chih-Hsien Hsia
- Designed a deep learning model to predict the music genre and to analyze music sentiment
- Accepted by the IEEE International Conference on Knowledge Innovation and Invention 2022

Undergraduate Student Researcher, Multimedia Signal Processing Lab Jan. 2021 – Feb. 2022

- Advisor: Prof. Chih-Hsien Hsia
- Design a generative adversarial network model to transform makeup styles
- Published in the SPIE International Workshop on Advanced Imaging Technology

WORK EXPERIENCE

Software Engineering Intern, Microsoft July 2021 – June 2022

- Built a healthcare hybrid cloud solution prototype on Azure Stack Hyper-Converged Infrastructure (HCI)
  - Built the infrastructure of Azure Stack HCI, including network, clusters, and storage
  - Utilized Azure Kubernetes Service to deploy and manage containerized applications
  - Demonstrated the first prototype of Fast Healthcare Interoperability Resources (FHIR), integrating databases of hospitals in Taiwan
- Deployed a self-hosted gateway using Taiwan Stock Exchange APIs on Azure Stack HCI

- Delivered a 3-hour hands-on workshop on Azure Machine Learning Services to the data science team at China Medical University
- Led a 3-hour workshop on building a face detection application using PowerApps and Face API to 120+ undergraduate female students
- Contributed to 15+ technical documents and demo pipelines on Azure DevOps

Teaching Assistant, Programming in Business Computing at NTU Sep. 2020 – June 2021

- Instructed fundamental Python during office hours twice a week for programming beginners
- Provided office hours twice a week for 40+ students
- Tested the judging system for 8 programming assignments and 2 midterm exams

Data Analyst Intern, eLand Information Apr. 2020 – Aug. 2020

- Analyzed sales data of Shopee and public opinion using machine learning models
- Performed data cleansing using MySQL and Python on more than 1 million comments and articles

EXTRACURRICULAR ACTIVITIES

Founding Member & Technical Lead, Google Developer Student Club Sep. 2022 - present

- Designed workshops for students interested in open-source projects
- Instructed 40+ students in building mobile applications using the Flutter framework

Data Analytics Club, NTU Sep. 2019 - June 2020

- Analyzed the sales data of 91APP with Python and R and performed customer segmentation
- Surveyed the current sales disadvantage of the cooperating e-commerce store and further provided OMO marketing strategies

International Student Volunteer, NTU Jan. 2019 - June 2019

- Provide one-to-one administrative services to new international students

Volunteer, Global Initiatives Symposium in Taiwan Sep. 2018 - June 2019

- Organized 5-day activities and lectures for more than 200+ delegates from 14 countries
- Led 50+ delegates in solving FinTech action projects

SELECTED PROJECTS

Lexicalegend July 2022 - Aug. 2022

- Designed an interactive chatbot in TypeScript supporting vocabulary learning for 850+ users
- Integrated multiple dictionary references in the chatbot that can recommend random vocabulary from 6 different exams

Long Tail Annihilator Nov. 2021 - Jan. 2022

Ranked 1st/ 10 teams in Deep Learning for Computer Vision Final Project

- Proposed a bilateral-branch network with the Swin Transformer backbone to perform long-tail fine-grained food classification (ICCV'21 Workshop Challenge)
- Achieved 88.07%/85.04%/65.73% accuracy on frequent/common/rare track (number of data: 100+/10~100/<10) on 1000-class food image classification

SKILLS

- Programming languages: Python, C/C++, JavaScript/TypeScript, SQL
- Frameworks: ReactJS, NodeJS, PyTorch
- Cloud & Development tools: Azure, Kubernetes, Docker

Last updated in Dec. 2022