Tzu-Hsuan Lin

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Education

University of Southern California (USC) **Los Angeles, CA**

M.S. in Computer Science Aug. 2021-May 2023 (Expected)

National Central University (NCU) **Taoyuan, Taiwan**

B.S. in Computer Science and Information Engineering Sep. 2017-Jan. 2021

GPA 4.11/4.3

- 11th place (out of 94 groups), National Intelligent Innovation and Creation Contest, Ministry of Education, Taiwan
- 5th place (out of 20 groups), 12th Competition of Special Project, College of EECS, NCU
- 4th place (out of 51 groups), Competition of Special Project, Department of CSIE, NCU
- Recipient of the 2021 National Sewing Union Merit Scholarship (NTD; GPA 90/100)
- Recipient of the 2020 Hsieh-Ho Power Plant Merit Scholarship (NTD; GPA 90/100)
- Recipient of the 2019 Taoyuan City Sewing Union Merit Scholarship (NTD; GPA 90/100)

Publication

Lin, Tzu-Hsuan, and Jehn-Ruey Jiang. "Anomaly Detection with Autoencoder and Random Forest." *2020 International Computer Symposium (ICS)*. IEEE, 2020.

Work Experience

NextDrive Company **Taipei, Taiwan**

R&D Associate Back End Engineer July 2020-Dec. 2020

- Worked with four colleagues on designing and testing APIs for commercial products
- Completed three projects; Studied Git and GitHub, ensured the APIs fit product features, reviewed codes, and improved performance

Programming Projects

Neural Machine Translation in Python Dec. 2020-Jan. 2021

- Implement multi-head attention, Feed Forward Network, and Transformer

Fruit and vegetable price Android application June-Oct. 2020

- Led a team of four to classify fruit and vegetable using CNN MobileNet and scrap market prices with web crawler

Web-based time series anomaly detection using Autoencoder in Python Feb.-May 2020

- Developed a user-friendly web page that allows people without a background in deep learning to apply anomaly detection to any dataset

Web-based machine learning modeling construction assistant Sept. 2019-Feb. 2020

- Implemented four applications of Autoencoder, including dimensionality reduction, image denoising (DAE), feature extraction, and anomaly detection (VAE)

Object detection and labeling using faster R-CNN in MATLAB Feb.-Apr. 2019

- Located and labeled 200 different objects with an 85% accuracy rate

Additional Information

Programming: C++, Python, MATLAB, Java, Git, and Assembly Language
Languages: Chinese (native), English (fluent), Spanish (beginner)
Interests: Playing piano, Backpacking

Activity

Vice President, NCU Piano Club July 2018-June 2019

- 2nd place (out of 258 clubs), Evaluation of National College Student Associations Contest
- Organized two two-day music camps for elementary school students, and school-wide events such as an evening gala (120 attendees), and a piano concert (100 attendees)