HSIU-CHEN (CONNOR) YU

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SUMMARY

Passionate about Machine Learning (ML). Experienced in facial expression recognition and data mining, focusing on developing advanced algorithms, enhancing model accuracy, and leveraging big data for comprehensive insights. Also I enjoy exploring different academic field and learning new knowledge.

- Skills: Linux, WordPress, Microsoft Office, AWS, Docker
- Languages: C/C++/C#, Python, JAVA, MySQL,
- Tools: Pytorch, TensorFlow, MS Visual Studio (code), Vim

EDUCATION

National Taiwan University of Science and Technology (NTUST) (GPA 3.95/4.30, 3.84/4.00)

B.S. in Computer Science and Information Engineering — Sep 2021 - Present

- **Coursework:**
  - Knowledge-Based Systems, Data Mining, Computer Game Programming, Information Security, Data Privacy and Security, Multimedia Information Systems, Practicum in Hybrid Cloud Platform
  - Compiler Design, Computer Organization, Operating Systems, Software Engineering, Database Systems, Object-oriented Programming, Computer Programming, Data Structures, Algorithms
  - Engineering Mathematics, Probability and Statistics, Discrete Mathematics, Linear Algebra, Calculus I/II, Electronic Circuits, Digital Logic Design
  - Economics, Internet and Copyright
- **University Project:** Live Emotional Resonance Application Based on Facial Expression Recognition Technology (**LERA-BFERT**)
- **Research Project:** Combination with Efficient Masked Autoencoder for Self-supervised Dynamic Facial Expression Recognition and CA_Module (**MAE-DFER-CA**)

PROJECT/RESEARCH EXPERIENCE

LERA-BFERT [code] [poster] [paper]

University Project led by Prof. Bi-Ru Dai, CSIE, NTUST — Feb 2023 - Dec 2023

- Enhances viewer empathy by displaying live, collective emotional responses.
- Utilizes Dynamic Facial Emotion Recognition (DFER) and micro-expression analysis for **real-time emotional detection**.
- Employs APIs to aggregate and process audience emotional data, allowing content adaptation.

MAE-DFER-CA [code] — Aug 2023 - Dec 2023

Research Project led by Prof. Bi-Ru Dai, CSIE, NTUST

- Advances DFER with self-supervised MAE-DFER, tackling large-scale data scarcity.
- Incorporates an efficient LGI-Former encoder for improved performance and reduced computational cost.
- Enhances the model with adapted CA_Module from MMNET for **improved** facial emotion recognition by learning comprehensive **muscle motion patterns** in video frames.

ADDITIONAL INFORMATION

- **Flask_TIMnet_API:** Emotion Recognition API **[code]**
- **2023 E.SUN BANK Business Proposal Competition(Merit Award) [link]**
- **Digital Cultural Exchange Learning Project [link]**
- **TOEFL iBT:** 85