Hsiu-Chien (Connor) Yu

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EDUCATION

The Ohio State University, Columbus, OH   *Aug. 2025 — Present*
Master of Science in Computer Science and Engineering (CSE)

National Taiwan University of Science and Technology (NTUST), Taipei, Taiwan   *Sept. 2020 — Jun. 2024*
Bachelor of Science in Computer Science and Information Engineering (CSIE)
• Overall GPA: 3.89/4.30, Top 20% of CSIE Department

PROJECT/RESEARCH EXPERIENCE

AutoMLOps-Cloud: End-to-End Customer Purchase Prediction Pipeline [GitHub]   Remote
An independent project developed while at Artifact Tech   *Feb. 2025 — June. 2025*
- **Architected** a production-grade MLOps pipeline on **AWS**, using **Step Functions** to automate the entire ML lifecycle from training to batch prediction
- Engineered a containerized (**Docker**) application for PyTorch & XGBoost models and established a CI/CD workflow with **GitHub Actions** for automated deployment to **Amazon SageMaker**.
- Developed and served the model via a **Flask-based** API, making customer behavior forecasts accessible through a SageMaker-compatible endpoint.

LERA-BFERT: Live Emotional Resonance Application [poster][report][GitHub]   Taipei, Taiwan
University Project led by Prof. Bi-Ru Da, CSIE, NTUST   *Feb. 2023 — Dec. 2023*
- Led a team to develop a real-time audience engagement solution by implementing Dynamic Facial Emotion Recognition and micro-expression analysis, enabling emotional detection and displaying collective emotional responses to enhance viewer empathy.

MAE-DFER-CA: Enhanced Dynamic Facial Emotion Recognition with Attention [GitHub]   Taipei, Taiwan
Undergraduate Research led by Prof. Bi-Ru Da, CSIE, NTUST   *Feb. 2023 — Dec. 2023*
- **Enhanced** the performance of self-supervised methods for Dynamic Facial Emotion Recognition (DFER) by incorporating the CA_Module from MMNET into the MAE-DFER model, enabling refined muscle motion pattern recognition with minimal computational cost.
- Increased model accuracy, achieving a WAR of 52.40 with a marginal rise in FLOPS (from 50G to 52G).

WORK EXPERIENCE

Artifact Tech (App & Backend API Development**)**, Taichung, Taiwan   *Jan. 2024 — Mar. 2025*
Data Analysis Engineer
- Contributed to data analysis and backend development for LPG_CLOUD, enhancing gas tracking accuracy.
- Built web functions, including financial pages, using JavaScript, Python, and SQL, and integrated LINE Bot API to improve user interaction, gaining interest from five+ clients.

SELECTED COURSE PROJECTS

3D Reconstruction from Stereoscopic Images, *Computer Vision and Applications*   *May. 2024 — Jun. 2024*
- Developed a Python and OpenCV program for 3D point reconstruction from stereoscopic images, ensuring accuracy with triangulation, camera parameters, and error checks.
- Generated and verified a color 3D point cloud in XYZ format using MeshLab.

Turing Compiler Development Using Robust Parsing, *Compiler Design*   *Apr. 2023 — Jun. 2023*
- Built an LALR(1) parser for the sT language using Lex and Yacc, performing semantic checks. Generated Java assembly code, successfully compiled into Java bytecode.

EXTRACURRICULAR ACTIVITIES

Volunteer, Digital Cultural Exchange Learning Project, **NTUST**, Taipei, Taiwan [post]   *Oct. 2023 — Jan. 2024*
- Mentored Kenyan students in AI software (Playground.ai) to develop ESG solutions.

Team Member, **E. SUN Commercial Bank**, Taipei, Taiwan [post]   *Oct. 2023 — Dec. 2023*
- Developed a sentiment analysis model by integrating facial expression detection and speech recognition to predict stock performance through corporate optimism.
- Won the **Merit Award** at the 2023 E.SUN BANK Business Proposal Competition.

ADDITIONAL INFORMATION

- AI & Computer Vision: PyTorch, TensorFlow, OpenCV, Pandas, NumPy, MeshLab
- Cloud & DevOps: AWS, Docker, Git, TypeORM
- Programming: Python, C/C++/C#(Unity), Java, JavaScript, Typescript, SQL
- Software & Tools: VSCode, Visual Studio, Vim, Unity