HSIU-CHEN (CONNOR) YU
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EDUCATION

The Ohio State University Aug 2025 — May 2027
M.S. Computer Science and Engineering Columbus, OH

National Taiwan University of Science and Technology Sept 2020 — Jun 2024
B.S. Computer Science and Information Engineering Taipei, Taiwan
• Overall GPA: 3.89/4.30, Top 20% of CSIE Department

TECHNICAL SKILLS

• **Programming:** Python, C/C++/C#(Unity), Java, JavaScript, TypeScript, SQL
• **Frameworks & Tools:** PyTorch, TensorFlow, ROS, AWS, Docker, Git, Unity, OOP, REST API, TypeORM
• **Languages:** English, Mandarin (Chinese)

RESEARCH EXPERIENCE

AutoMLOps-Cloud: End-to-End Customer Purchase Prediction Pipeline [GitHub] Remote
An independent project developed while at Artifact Tech Feb 2025 — Jun 2025
- Architected a production-grade MLOps pipeline on AWS. Automated the training-to-prediction cycle using AWS Step Functions.
- 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.
- Collaborated with colleagues to refine system architecture and ensure alignment with project goals.

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 of four to develop a real-time audience engagement solution by implementing Dynamic Facial Emotion Recognition and micro-expression analysis.
• Enabled 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).

ENGINEERING EXPERIENCE

Buckeye Autodrive, The Ohio State University Sept 2025 — Present
Perception Team Member Columbus, OH
• Develop perception systems as part of OSU's entry in SAE/GM AutoDrive Challenge™ II, a five-year competition to design autonomous vehicles for urban driving.
• Build 2D/3D models for environmental understanding using LiDAR and camera data in ROS pipelines.
• Collaborate weekly with 50+ multidisciplinary teammates (sensing, controls, hardware) at OSU's Center for Automotive Research to align progress and integration.

Artifact Tech (App & Backend API Development**)** Jan 2024 — Mar 2025
Data Analysis & Backend Engineer Taichung, Taiwan
• 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, adopted by more than five clients.

CAMPUS ACTIVITIES & AWARDS

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.