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 Languages:** Python, C/C++/C#, Java, JavaScript/TypeScript, SQL
- **Frameworks & Tools:** PyTorch, TensorFlow, NumPy, Pandas, Scikit-learn, OpenCV, ROS, YOLO, SLAM
- **Platforms & Technologies**: AWS, Docker, Git, REST API, Unity, Linux, CI/CD, PostgreSQL

ENGINEERING EXPERIENCE

Buckeye Autodrive, The Ohio State University Sept 2025 — Present
Perception Team Member Columbus, OH
- Implement perception modules for **autonomous driving systems**, leveraging **YOLO** for object detection and **SLAM** for localization within **ROS2** pipelines to enhance scene understanding.
- Build 2D/3D environment models by fusing **LiDAR** and camera data, improving obstacle detection and navigation safety.
- Collaborate with 50+ teammates across sensing, controls, and safety at OSU's CAR to align progress and integration.

Artifact Tech (App & Backend API Development**)** Jan 2024 — Mar 2025
Data Analysis & Backend Engineer Taichung, Taiwan
- Designed and implemented a **time-series forecasting pipeline** for LPG demand prediction, improving accuracy by **10% compared to baseline averages** and enabling scheduled retraining.
- Built customer-facing dashboards with **TypeScript**, **Python**, and **SQL**, and integrated a **LINE Bot API** adopted by more than five clients, streamlining reporting workflows and enhancing user engagement.

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
- Designed and deployed a production-grade MLOps pipeline on **AWS Step Functions**, automating the full ML lifecycle from training to scheduled batch predictions.
- Containerized **PyTorch** and **XGBoost** models with **Docker** and implemented **CI/CD (GitHub Actions)** to enable reproducible deployments on **AWS SageMaker**.
- Exposed forecasts via a **Flask REST API**, reducing manual retraining effort and deployment cycle time.

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.
- Conducted a pilot study with **five participants**, demonstrating the system's ability to capture subtle audience reactions and visualize collective emotional trends.

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
- Implemented the existing MAE-DFER model in **PyTorch** and extended it by integrating the CA_Module (MMNET), improving recognition of subtle muscle motions while keeping computational cost low.
- Increased model accuracy, achieving a WAR of 52.40 with a marginal rise in FLOPS (from 50G to 52G).

CAMPUS ACTIVITIES & AWARDS

Volunteer, Digital Cultural Exchange Learning Project, NTUST, Taipei, Taiwan [post] Oct 2023 — Jan 2024
- Mentored Kenyan students for more than twenty hours 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.