My Le

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Education

Case Western Reserve University (Combined Bachelor's/Master's Program) Cleveland, OH
Master of Science in Computer Science (Artificial Intelligence) *Jan. 2026*
- **GPA:** 4.0/4.0

Case Western Reserve University Cleveland, OH
Bachelor of Science in Computer Science (Artificial Intelligence), Computer Engineering *Jan. 2026*
- **Minors:** Mathematics, Electrical Engineering (Robotics)
- **GPA:** 3.7/4.0

Experience

Machine Learning Research Assistant Ongoing
Ray's AI Lab, Case Western Reserve University *Cleveland, OH*
- Developed a modified online dictionary learning algorithm in PyTorch to learn sparse, local feature embeddings from neural touch responses, achieving >95% classification accuracy while preserving biological plausibility.
- Conducted comparative studies on regularization strategies for tactile stimulus reconstruction in prosthetics, designing optimal configurations that maintained >80% F1 reconstruction score with <20% dimensionality.

Robotics Research Assistant Oct. 2024 – May. 2025
Dept. of Computer and Data Sciences, Case Western Reserve University *Cleveland, OH*
- Implemented depth perception and navigation systems for custom underwater robots with OpenCV.
- Simulated manipulation tasks in Gazebo for Unitree Go2 and H1 robots to validate control algorithms before deployment, containerizing with Docker for reproducible execution.
- Integrated Whisper and GPT-4o to enable natural language robot control through voice commands.

Teaching Assistant – CSDS 440: Machine Learning Aug. 2024 – Dec. 2024
Case Western Reserve University – Dept. of Computer and Data Sciences *Cleveland, OH*
- Graded quizzes and assignments for 30+ graduate students, providing support outside scheduled lectures.
- Analyzed performance trends to identify learning gaps and improve students' understanding.

Undergraduate Research Assistant Aug. 2022 – Mar. 2024
ERIE Lab, Case Western Reserve University *Cleveland, OH*
- Integrated an eye gaze tracker into the da Vinci Surgical System via Unity to retain depth perception.
- Adapted and finetuned ResNet and EfficientNetB3 on an HPC cluster to develop a vision-based contact-conditional force estimation model, achieving >90% contact detection accuracy and <10% force prediction error.

Projects

Agentic RAG Pipeline for Philosophy Q&A | *LangChain, ChromaDB, GPT-4o*
- Built a domain-specific chatbot over the Stanford Encyclopedia of Philosophy with LangChain, using ChromaDB for vector storage and GPT-4o for context-aware natural language generation.
- Implemented autonomous multi-step planning, retrieval and summarization agents, improving accuracy of cited philosophical responses by streamlining query processing workflows.

Publications

Learning Low-dimensional Local Features from Somatosensory Neural Data
NeurIPS 2025 (In Review)
My H. Le, Cameron Byrne, Roberto Peralta, Emily L. Graczyk, Soumya Ray

Vision-Based Force Estimation for Minimally Invasive Telesurgery Through Contact Detection and Local Stiffness Models
Journal of Medical Robotics Research, 2024; IROS 2023 Poster (first author)
Shuyuan Yang, **My H. Le**, Kyle R. Golobish, Juan C. Beaver, Zonghe Chua

Technical Skills

Languages: Python, Java, C++, HTML/CSS, JavaScript, SQL
Tools & Frameworks: PyTorch, SciPy, Scikit-learn, OpenCV, Gym, LangChain, LangGraph, ChromaDB, MySQL, Keras, ROS 2, CMake, Gazebo, AWS, Docker, HPC, Slurm