Illy Hoang

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Programming	Python, C, C++, Java, JavaScript, PHP, TypeScript, HTML/CSS, Bash, React Native, Ruby, Swift, Kotlin
Frameworks	TensorFlow, Scikit-Learn, Flask, NumPy, Pandas, Matplotlib, Keras, PyTorch, Apache, Django, Polars
Technologies	Git, Jira, Docker, WordPress, AWS, SQL, MongoDB, Xcode, Android Studio, Node, VSCode, MATLAB

EDUCATION

University of Southern California   Expected May 2027
Master of Science in Computer Science

University of Connecticut   Aug 2021 - May 2025
Bachelor of Science in Computer Science, Minor in Mathematics

EXPERIENCE

USC Advanced Robot Combat Club   Los Angeles, CA
Autonomous Subteam Computer Vision Lead   September 2025 – Present
- Integrating a Teledyne FLIR Blackfly camera with a custom streaming interface for data collection at competitions
- Developed skeleton code that implements a pretrained YOLOv8 object detection model and an image normalization pipeline
- Coordinating with team of five in designing UI for custom control center and streaming dashboard

Savant Systems   Virtual
Software Engineer Intern - App Development   Aug 2024 – May 2025
- Resolved numerous high-priority bugs to enhance the UI of Savant's Power & Lighting app
- Refactored existing codebase created in React Native, Typescript and functional paradigms to optimize app logic
- Collaborated on data extraction tool through backend services using AWS and Node for web app feature

UConn School of Computing   Storrs, CT
Undergraduate Teaching Assistant   Aug 2023 – May 2025
- Assisted instructors for Discrete Systems, Systems Programming, Introduction to ML, and AI
- Facilitated lab sections, office hours, and exam review sessions to provide academic support to class sections
- Managed correspondences between Professor, TAs and students using Blackboard, Discord, Piazza, and emails

Infosys Limited   Hartford, CT
InStep Intern - Business Analyst/AI Research   May 2024 – Jul 2024
- Contributed across agile scrum cycles by presenting wireframes and actively participating in sprint planning
- Assessed GPT response quality to novel injection prompts for research in combatting prompt exploitation
- Certified in Cloud services and security principles, ethical AI fundamentals/governance, and prompt engineering

UConn University Communications   Storrs, CT
Web Developer   Oct 2023 - May 2024
- Automated plug-in management by utilizing WP-CLI scripts in Jenkins CI/CD to reduce manual overhead
- Managed updates to UI of university official websites using WordPress and PHP
- Troubleshot technical issues reported by other departments, ensuring reliable servers across university operations

PROJECTS

Transformer for Longitudinal Autism Behavior Analysis   Jan 2025 - May 2025
- Developed Transformer-based algorithm for identifying key behavioral traits related to autism across age groups
- Achieved 0.730 in accuracy, 0.634 in precision, 0.891 in recall, and 0.741 in F1 scoring

Intelligent Fashion Classifier   Aug 2024 - May 2025
- Designed UI for input retrieval through either drag-drop and live-stream based on user input
- Trained ResNet-50/152/Mask R-CNN backbones for interchangeable feature learning in multi-label classification
- Automated hyperparameter tuning for optimal parameter combination per backbone architecture using Optuna
- Transferred model into Ultralytics YOLOv8 by formatting COCO-style annotations
- Deployed inference over live video using WebSockets and React/Dash front-end integration

Predicting Masked Player Motion with BERT   Oct 2024 - Feb 2025
- Designed parallelized feature extraction with multiprocessing to accelerate dataset initialization
- Implemented multi-task architecture with Transformer encoder with positional embeddings and separate decoders for position classification and coordinate regression
- Achieved ~70% accuracy, F1 and precision for classification and 3 yard MAE for regression