

Ryan Lagasse

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EDUCATION

University of Connecticut College of Engineering

2025

Computer Science - AI Concentration - Math Minor

- Coursework: *Computer Science, ML, Stats, Transformers, and research in machine learning, NLP, and LLMs*
- Activities: Co-founder of Quant Club, SWE with HuskyDevs, MLOps with AI club, Data Science Club

TECHNICAL SKILLS

- *Computer Languages:* Python, C, C++, SQL, Java, Rust, MatLab, HTML5/CSS3/JS
- *Tools:* Git, PyTorch, TensorFlow, pandas, Numpy, Scikit-learn, MatLab, Kafka, Azure, PowerBI, AWS
- *Skills:* Algorithm development, machine/deep learning, data science, data pipelines, reward engineering, Agile
- Strong OOP skills, LLM and DL model finetuning, ML stack design, data analysis/querying/modeling

WORK EXPERIENCE

AI/ML Intern - AI Innovations, Lockheed Martin, Shelton, CT

Summer 2024

- Will be writing a cutting-edge paper on generalization in transformers using RL world-building models
- Will develop advanced computer vision models optimized for speed to test on robotic platforms
- Will be prototyping modularized code to be used in future papers in the CVS team

Co-Founder, Lead AI/ML Engineer, RapidResponse, Storrs, CT

September 2023-2024

- Developing VR simulations in Simulink to train AI agents for drone delivery and target searching
- Designing memory modules and attention mechanisms with the goal of better-informed decision-making
- Leading a team of 5 engineers to iterate through prototyping, testing, and refinement of drone hardware

Co-Teacher of Introduction to Transformers CSE 4095, Uconn College of Engineering, Storrs, CT

2023-2024

- Teaching accredited Uconn course on transformers focusing on self-attention and finetuning models
- Developed and delivered weekly lectures on NLP using transformer models, including BERT, GPT-3, T5, and DALL-E

Generative AI Researcher, Hubbell Incorporated, Remote

July 2023

- Lowered response errors of Gen-AI models by 45% with prompt injection and fine-tuning
- Trained LLMs on 10-Q and 10-K financial documents to build FMs and perform advanced financial analysis

Machine Learning Engineer, Hubbell Incorporated, Avon, CT

Summer 2023

- Built ML failure prediction models for testing for 7M+ Aclara electric meters with 99% accuracy
- Designed Teams bot using my models and Llamas to work through observations with the test engineers
- The tool is in use and saves hours of senior engineer's time and uses incremental learning to adapt to new updates

RESEARCH EXPERIENCE

UCONN CSE Department, Deep Learning Researcher, Storrs, CT

2023-2024

- Won first place in accuracy and fourth place overall at the TinyML Design Contest at ICCAD
- Developing a cutting-edge CNN and deep learning algorithm for the classification of life-threatening ventricular arrhythmias (VAs), addressing the primary cause of Sudden Cardiac Death (SCD)
- Improved the accuracy of our model up to 98% accuracy and lowered the model latency significantly using C

PROJECTS & LEADERSHIP EXPERIENCE

Deep Learning Model and Natural Language Analysis of Stocks, Lead Developer

2023

- Designed deep learning model to analyze news positivity compared to stock pricing with 95+% accuracy
- Achieved a 32% improvement in data retrieval and analysis by optimizing my SQL database
- The model uses finetuned Llamas2 through HuggingFace to explain decisions to users with 90% accuracy