

Joseph A. Celtruda

Troy, NY | jaceltruda@gmail.com | (518) 450-3994 | joceltruda.dev | github.com/jceltruda/

EDUCATION

Rensselaer Polytechnic Institute, Troy, NY <i>Master of Science in Computer Science</i>	August 2025 - Expected December 2026
Rensselaer Polytechnic Institute, Troy, NY <i>Bachelor of Science in Computer Science, Minor in General Psychology</i> Concentration in Artificial Intelligence, Machine Learning, and Data	August 2022 - December 2025

- Researching sequential recommender systems, optimizing attention mechanisms for efficiency, scalability, and accuracy.

- GPA: 3.57

- Coursework: Machine Learning from Data, Computational Vision, Distributed Systems, Network Programming, Database Systems, Data Structures, Operating Systems, Principles of Software, Programming Languages

SKILLS

Languages & Tools:	Python, Java, C++, C, JavaScript, SQL, AWS, Git, Linux, PostgreSQL, Dart, Gradle, Kotlin, Power BI
Frameworks & Libraries:	PyTorch, LangChain, Transformers, NumPy, Pandas, SciPy, OpenCV, Matplotlib

WORK EXPERIENCE

TE Connectivity, Winston-Salem, NC	May 2025 - August 2025
<i>Software Engineer Intern</i>	
- Trained PyTorch regression models for anomaly detection and predictive maintenance on manufacturing sensor data.	
- Designed scalable JavaScript microservices and APIs using MQTT/HTTP and Postgres for data monitoring and alerting.	
- Developed a full-stack web dashboard (Node.js, Bootstrap) for real-time alert monitoring, resolution, and management.	
- Built a mobile Flutter Android app with real-time alerts and a low-latency push-to-talk feature using Socket.IO/WebRTC.	
P1ston, Remote	May 2025 - August 2025
<i>AI Engineer Intern, Part-Time</i>	
- Fine-tuned open-source LLMs for supply chain document processing, improving extraction performance and reliability.	
- Engineered extraction prompts with chain-of-thought and multi-shot techniques, achieving 100% validation accuracy.	
Hudson River Community Credit Union, Corinth, NY	May 2024 - August 2024
<i>Management Information Systems Intern</i>	
- Engineered automated pipelines to streamline data collection, processing, and integration for a relational database.	
- Developed Python scripts leveraging Pandas and REST APIs to geocode and format over 100K data points for analysis.	

PROJECTS

Lung Cancer Detection Using Convolutional Neural Network Python	
- Developed and trained a CNN using PyTorch to classify CT lung scans as cancerous or non-cancerous.	
- Achieved 0.982 F1 score and 98.31% accuracy with 0% false negatives via custom grayscale and contrast enhancements.	
AI Email Assistant Python	
- Built AI-powered email assistant using LangChain and LLM APIs to classify intent and process incoming email content.	
- Integrated Google APIs to create calendar events, track tasks, and draft personalized email replies automatically.	

LEADERSHIP EXPERIENCE

Theta Xi Fraternity	December 2024 - Present
<i>President</i>	
- Leading a 50+ member organization with a \$300K budget, overseeing operations, governance, and risk management.	
- Secured the Theta Xi <i>Memorial Trophy</i> as the top national chapter (1 of 44) for the first time in 78 years.	
RPI Computer Science Department	August 2024 - Present
<i>Programming Mentor, Intro to Algorithms</i>	
- Leading weekly recitations, mentoring 80+ students on dynamic/linear programming, binary search, graph theory.	