Ruby Yu

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Education

Georgia Institute of Technology — Atlanta, GA

Bachelor of Science in Computer Science — Aug 2022 – present (Expected May 2026)

Concentrations: AI/ML & Human–Computer Interaction

GPA: 3.80/4.0

Experience

Research Assistant — Sept 2025 – present

Georgia Tech Technologies & International Development Lab — *Atlanta, GA*

- Contributing to AfriMedQA, the largest study on LLMs in African healthcare, benchmarking 20+ models on a 25K-question dataset across 32 clinical specialties in 15 African countries
- Conducting multilingual evaluations to assess model reliability across official and local African languages in medical contexts
- Investigating failure modes and linguistic disparity patterns to support safer and more responsible deployment of medical AI in real-world settings

Data Scientist Intern — May 2025 – Aug 2025

EM-Powerhouse — *Waco, TX*

- Built an automated pipeline to replace manual review of 10K+ student application records per cycle for undergraduate admission, enabling data-driven recruitment and funding strategies
- Engineered an "academic readiness index" by integrating quantitative application features with LLM-based analysis of qualitative attributes
- Built feature engineering workflows and structured datasets to enable predictive modeling and evaluation of student enrollment outcomes

Undergraduate Researcher — Jan 2024 – May 2025

Georgia Tech Automated Algorithm Design Group — *Atlanta, GA*

- Integrated an LLM-guided evolutionary framework to automate optimization of PointNet++ and Point Transformer 3D point cloud classification models
- Refactored a hardcoded pipeline into a YAML-driven modular design, enabling automatic model detection and making it reusable for new architectures with only a one-line configuration change

Projects

HyperlocalWX: Fast Weather Inference System — Sept 2025 – Dec 2025

CS 4641: Machine Learning — *Atlanta, GA*

- Developed a fast weather-prediction system designed to outperform traditional distance-based interpolation methods and slow physics-based forecasting models
- Engineered geographic features such as elevation, terrain slope, and urban heat patterns to improve temperature prediction accuracy
- Trained boosted decision trees and Gaussian-process models to evaluate how well machine learning can replace conventional forecasting approaches

Relevant Coursework

Machine Learning, Artificial Intelligence, Computer Vision, Design & Analysis of Algorithms, Computer Graphics, Information Visualization, Discrete Mathematics, Probability & Statistics, Automata & Complexity

Technical Skills

Languages: Python, Java, C/C++, SQL, R, JavaScript, HTML/CSS, C#

Technologies: PyTorch, TensorFlow, NumPy, pandas, scikit-learn, Git, D3.js, Node.js, Tableau, PowerBI