

Rylee Albrecht

Orlando, FL

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EDUCATION

Brigham Young University (BYU)

Bachelor of Science, Computer Science, Emphasis in Data Science – GPA 3.67

Jun 2024

Provo, UT

University of Central Florida (UCF)

Master's Degree, Computer Vision – GPA 3.96

Dec 2026

Orlando, FL

SKILLS

- **Programming Languages:** Python, Java, JavaScript, SQL, R, C, C++, C#
- **ML/AI/Data Science:** PyTorch, transformers, Hugging Face, scikit-learn, OpenCV, CUDA, NumPy, pandas, matplotlib
- **Tools/Technologies:** Git, Jupyter, Docker, Bash, AWS, LaTeX, Unity, MATLAB

AWARDS

1st place in Data Science session at annual Brigham Young University Student Research Conference

Feb 2024

For research in Mimicking Persuasive Conversational Dynamics with Language Models

- Explored ways Large Language Models can act similarly to humans, given the same persuasive conversational task.

EXPERIENCE

Photography Agent

Sept 2025-Dec

Collaborative project

Orlando, FL

- Fine-tuned Llama-3-8B-Instruct with LoRA on ~2K self-curated examples to create an LLM-based photo editing agent.
- Contributed to the design and integration of tool-selection logic for invoking photo editing and filtering tools.
- Evaluated agent on test set, achieving 88% accuracy in tool selection, error handling, and conversational responses.

Harvard Aging Brain Study (Massachusetts General Hospital)

May 2024-Aug

Research Intern

Boston, MA

- Preprocessed NIfTI neuroimages, including normalization and registration to MNI space.
- Worked on adapting a diffusion model for cross-modality MRI synthesis (T1-T2) to reduce the need for additional scans.
- Performed statistical analysis and visualization in MATLAB and R on neurological datasets.

Perception, Control, and Cognition Lab (BYU)

May 2023-May 2024

Research Assistant (RA)

Provo, UT

- Engineered prompts across LLMs (e.g., LLaMA-2, GPT-4, Claude) to optimize and evaluate human-like responses.
- Fine-tuned large-scale LLaMA models on an HPC cluster using SLURM for distributed training.
- Tested LLM prompts at small scale to reduce costs before full-scale experiments.

Computational Health Sciences Lab (BYU)

Nov 2023-Apr 2024

Research Assistant (RA)

Provo, UT

- Cleaned, aggregated, and engineered features from ER data to prepare structured inputs for modeling.
- Trained ML models and analyzed feature importance to examine potential contributing factors to ER diagnoses.
- Collaborated in an interdisciplinary lab across Statistics, Computer Science, and Public Health.

Bean Lab (BYU)

Sept 2023-Apr 2024

Capstone Data Science project

Provo, UT

- Implemented cross-lingual semantic search using OpenAI text embeddings, embedding queries in multiple languages and aggregating cosine similarity scores to improve passage retrieval and recommendations.
- Collaborated on full-stack development by integrating embedding pipelines and validating system performance.

VOLUNTEER EXPERIENCE

The Church of Jesus Christ of Latter-Day Saints

Mar 2020 – Aug 2021

Volunteer Full-Time Representative

Richmond, VA

- Developed strong interpersonal and communication skills by working closely with individuals from diverse backgrounds in one-on-one and group settings.
- Took on leadership responsibilities, including training and mentoring peers and coordinating team efforts.