ETHAN REINHART

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OBJECTIVE

I am a Software Developer / AI Engineer / Data Scientist with 2+ years of experience in software and machine learning research, seeking to apply my skills to an AI engineering role.

EDUCATION

Master of Computer Science, University of Oregon, GPA 4.0 — Expected 2026
Bachelor of Computer Science, University of Oregon, GPA 4.06 — 2021 - 2024
Bachelor of Mathematics, University of Oregon, GPA 3.99 — Expected 2025

SKILLS

Languages	Python, C, C++, CUDA, Bash, JavaScript, SQL, HTML, CSS
Libraries	PyTorch, TensorFlow, MPI, OpenMP, Pandas, React, SQLAlchemy
Frameworks	Git, Linux, Docker, Ubuntu, NextJS, FastAPI, PostgreSQL, SLURM
Knowledge	Linear Algebra, Data Analysis, Statistics, Hardware, OS, Dynamic Programming, Multi-Variable Calculus, Programming Languages, Natural Language Processing, Recommender Systems, Transformers, Vision Transformers, AWS

EXPERIENCE

Graduate Researcher — Jan 2025 - Present
University of Oregon — *Eugene, OR*

- I am currently researching and implementing RAG architectures under Professor Yu Wang.
- I seek to improve agent actions using action graph generation and traversal.

Research Intern — June 2024 - Sept 2024
University of Oregon — *Eugene, OR*

- I created Software to predict the trajectories of balloons.
- I used machine learning to predict the weather in 4D space, based on previous observations.
- My model's error was about 3 miles from the final destination, considered impressive within the domain.

Founder — Jan 2025 - Present
Beat The Books — *Eugene, OR*

- We created a machine learning model to predict various statistics for sports games.
- We scraped existing book lines to help users identify the best value.
- For predicted total NBA game points, our mean absolute error is around 3 points (98% total point accuracy).

PROJECTS

Dermo AI Implemented a ViT to classify moles as benign or malignant and skin disease classification. Curated the largest public dataset for the domain. Won BeaverHacks 2025.(Download)(Website)

HOUSER I created a recommender system to optimize user post-purchase satisfaction. I implemented three model types, compared accuracies, and combined them to optimize user post-purchase satisfaction.(Download)

N-Body Barnes Hut Parallelization I implemented the N-Body Barnes Hut Parallelized Algorithm using: OpenMP and CUDA. I tested this on UO's Talapas cluster, allocating resources to the program. I used X11 to remotely integrate graphics from server computations.(Download)

Node Classification I tested the efficacy of different models for the classic node classification problem. Datasets used vary in level of homophily. I experimented with my models to improve accuracy. (Download)