

Jordan Tan

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EDUCATION

University of Utah, Salt Lake City, Utah

BS/MS (Hons): Computer Science

Relevant coursework: Machine Learning, Deep Learning, NLP with Deep Learning, Manage Data for & with ML, Artificial Intelligence, Database Systems, Algorithms & Data Structures, Software Practice

Dean's List **GPA: 4.0**

Aug 2020 – May 2025 (Expected)

SKILLS

Programming Languages: Python, SQL, C++, JavaScript, TypeScript, Java, Kotlin

Python Ecosystem: NumPy, pandas, scikit-learn, Matplotlib, PyTorch, HuggingFace, LlamaIndex, guidance

AI/ML APIs: Anthropic, OpenAI

Databases and Big Data: MySQL, PostgreSQL, MongoDB, Apache Spark

Infrastructure and Platforms: AWS, Slurm

Tools: Git, GitHub, Bash, Docker, Jupyter Notebooks, Excel

Environments: Visual Studio, Visual Studio Code

WORK EXPERIENCE

Technical Cofounder | Prometheus Mortgage, Salt Lake City, UT

May 2024 – Present

- Developed a mortgage loan officer chatbot for onboarding that handles question-answering, using AWS Lambda with a container image to handle chat responses.
- Explored Llama 3 8B and Claude 3.5 Sonnet models with ReAct prompting and guidance for structured generation.
- Introduced RAG from LlamaIndex to search through 1000+ conversation pairs, enhancing response accuracy.

Research Assistant | University of Utah, Salt Lake City, UT

Jan 2023 – May 2023

- Collaborated in the design of a formal equivalence checking tool for RISC-V assembly language.
- Generated 50+ tests to ensure accuracy of a modified CASM-Verify library.

Teaching Assistant | University of Utah, Salt Lake City, UT

Jan 2022 – May 2022

- Coordinated in teaching Discrete Structures for a class with over 200 students.
- Led discussion sessions on discrete math concepts and reviewed homework.
- Awarded feedback to students' work through grading homework assignments and all 6 tests.

PROJECTS/RESEARCH

Data-centric ML Regression Project | Independent

Mar 2024

- Leveraged data engineering techniques to improve the accuracy of a regression model predicting flight delays from flight history data.
- Utilized scikit-learn to design data pipelines for imputation of missing values and feature engineering, enhancing data quality for model training.
- Reduced RMSE from 2,049,382 on unclean data to 4.94 on cleaned data, significantly improving model performance.

Examining Compositional Behavior in Large Language Models BS Thesis | Collaborative

Aug 2023 – May 2024

- Researched how large language models solve tasks by exploring two: multiplication and word list operations.
- Utilized the HuggingFace library and devised Slurm scripts for experiments with Flan-T5 and Llama 2-Chat models.
- Determined that prompting with subtask examples had zero impact on performance on compositional tasks.

Replicating SelfExplain Project | Independent

Nov 2023 – Dec 2023

- Reproduced the SelfExplain classification model, an interpretable model that identifies top 5 concepts from the input that contributed to a prediction the most.
- Achieved 94.8% validation accuracy on the SST2 dataset with scores for relevant concepts with the RoBERTa model.

Convolutional Neural Network Project | Independent

Oct 2023

- Created a convolutional neural network (CNN) for classifying images into 10 distinct groups using NumPy.
- Designed 6 types of layers to enable pattern learning in images: the convolutional, max pool, batch norm, ReLU, fully connected, and softmax layers.
- Achieved 68.7% accuracy, surpassing the expected 62% on the CIFAR-10 dataset.

VOLUNTEER EXPERIENCE

AI Content Developer | Science Mentorship Institute

Nov 2023 – May 2024

- Strategized and prepared content for the 2024 Computer Science Mentorship Program (CSMP) journal club.