DAYN REOH

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EDUCATION

University Of Colorado Boulder

Boulder, CO

Bachelor of Science Graduation: May 2025

Major: BS in Computer Science | Minors: Leadership, Economics | GPA: 3.7/4.0 | Dean's List: Fall 2022, Spring 2023 Relevant Coursework: Data Science, Algorithms, Into to ML/AI, Linear Algebra, Operating Systems, Computer Systems

WORK EXPERIENCE

NLP Data Science Intern

Boulder, CO

Magnifi by TIFIN (fintech startup company)

Aug 2023 - Nov 2023

Key member in the integration and analysis of a fine-tuned LLama 2 model that elevates the accuracy and quality of user intent ontology classification for Magnifi's financial chatbot. Analyzed user engagement and sentiment from live chat data, categorizing user intents to pinpoint weaknesses in chatbot performance.

- Developed normalization scripts, tokenizing financial terms, and applied cluster analysis with text embeddings to refine
 user message meanings. Optimized intent labeling via few-shot learning in mixed learning environments.
- Employed Neo4j to map chatbot session data into a graph structure, utilizing sentiment analysis and pattern detection
 to enhance user intent understanding and troubleshoot areas leading to user drop-off.
- Fine-tuned flan-t5 transformer for intent ontology classification using data science methods and log-likelihood metrics to confirm model confidence. Applied prompt engineering with GPT-4 to refine low-confidence classifications.
- Designed regression tests to evaluate LLama 2 model intent predictions, focusing on contextual chat history and analyzing key metrics like rephrase accuracy and classification continuity.

Software Engineering Intern

Colorado Springs, CO

Frontgrade Technologies (aerospace and defense manufacturing company)

May 2023 - Aug 2023

Implemented automation framework for computer chip testing procedures, leveraging Cobot arm robotics and a fine-tuned Computer Vision model based on YOLOv5 framework. Optimized to enhance real-time accuracy and improve operational efficiency on the production test floor.

- Built a custom object detection model to detect and locate computer chips in real time, achieving a 99% barcode scanning success rate, resulting in ~\$200/hr savings through automation and improved chip detection accuracy.
- Programmed robotic sequences for chip detection, barcode scanning, and subsequent analysis to handle chips as needed. Utilized OOP to calculate and manage objects in 3D space within my program.

Course Assistant Boulder, CO

Intro to Data Science with Probability and Statistics (University of Colorado Boulder)

Aug 2023 - Present

Support students in mastering introductory data science, probability, and statistics concepts by hosting weekly office hours.

UNIVERSITY PROJECTS (Refer to my GitHub profile for more information)

MiniGit Version Control System

Feb 2022

- A compact Git analogue, MiniGit. System allows users to conduct a range of version control operations, such as: committing, pushing, reverting, and pulling from a repository log. It maintains a comprehensive history of all repository states.
- Created using double and single linked lists, a hash table, and 2D arrays.

GreenChallenge, Carbon Emissions Full Stack Web Application

May 2023

- Full stack, gamified carbon emissions calculator web app. Users register an account to track their carbon emissions in household, travel, and food categories. Can connect with friends, complete on a leaderboard, and see all time stats.
- Created using PostgreSQL, NodeJS, ClimateIQ API, Bootstrap, HTML/CSS, Docker.

ACTIVITIES/SOCIETIES

President, National Society of Leadership and Success | Established and led a 100+ person chapter. July 2022 – Present Academic Chair, Theta Xi Fraternity | Achieved highest fraternity GPA at CU with a 3.15 average. Nov 2022 – Nov 2023

TECHNICAL SKILLS

Languages: Python, C++, Java, Javascript, C, MySQL, PostgreSQL, Scala, Cypher.

Libraries: Pandas, Numpy, Matplotlib, Node JS, YOLOv5, Sci-kit Learn, Hugging Face, NLTK, TensorFlow, PyTorch.

Developer Tools: Git, GitHub, GitLab, Docker, SVN, VS Code, Neo4j, GDB, Jupyter Notebook.