Tristan Allen

Rexburg, ID (open to relocation)

LinkedIn: www.linkedin.com/in/tristantravus

GitHub: https://tristanta.github.io/tristan-allen-portfolio/

Contact: tristantravus@gmail.com

Technical & Research Skills

Programming & Development: Python, R, SQL, PyTorch, TensorFlow, Hugging Face, TinyLlama, GitHub, Visual Studio Code
Machine Learning & NLP: LLM fine-tuning, Retrieval-Augmented Generation (RAG), Neural Networks (CNN, RNN, XGBoost), tokenization, emotional analysis models, prompt engineering
Psychometrics & Analysis: Factor analysis, reliability/validity testing, experimental design, statistical modeling, survey analysis
Data Visualization & Tools: Pandas, ggplot2, Tableau, Excel, Jupyter, RStudio
Software & Collaboration Tools: Git, VS Code, GitHub, Google Colab, Microsoft Office

Projects & Research

Multi-Agent AI Productivity App (In Progress)
• Lead Machine Learning Developer on a productivity app that uses AI agents to provide personalized behavioral advice and emotional coaching.
• Integrated Large Language Models (LLMs), Neural Network-based emotional analyzers, Retrieval-Augmented Generation (RAG) systems, and prompt engineering to deliver adaptive goal-setting and behavioral-change strategies.
• Developed key components for multi-agent coordination, context management, and tokenization pipelines using Python and PyTorch.

NLP-Powered Baseball Announcer (In Progress)
• Built a sports-focused NLP system for generating real-time baseball game commentary from statistical data inputs.
• Utilized LLMs for natural language generation and structured data processing for automated sports narratives; future phases will integrate text-to-speech systems for full audio output.
• Focused on statistical analysis, prompt engineering, and iterative model testing.

Customer Service Chatbot with TinyLlama (In Progress)
• Designed and implemented a conversational chatbot using TinyLlama-v1.0 within Visual

Studio Code.
• Focused on multi-turn dialogue flow, prompt engineering, and lightweight model tuning for customer-service tasks.
• Prioritized efficiency, simplicity, and conversational relevance in prototype development.

Education

Brigham Young University – Idaho
Bachelor of Science in Psychology (I/O Psychology)
Minor: Data Science
Expected Graduation: April 2026

Relevant Coursework: Machine Learning, Behavioral Neurobiology, Research Methods, Psychological Assessment, Intermediate Statistics, Data Wrangling & Visualization, Human Resource Management, Developmental Psychology, Personality, Databases, Programming with Functions

Work Experience

Advanced Drywall | Superintendent
Idaho Falls, ID — 2018 – Present

- Independently managed and completed construction projects
- Coordinated teams in completing construction projects

Teaching Assistant – Organizational Leadership (BUS 321)
Brigham Young University–Idaho — 2024 - Present

- Graded assignments and taught leadership theories.
- Reinforced understanding of group dynamics, decision-making, and I/O psychology topics.

Certifications & Affiliations

- Member: *Students Promoting Industrial Organizational Psychology*