Tra My (Chiffon) Nguyen

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RESEARCH INTERESTS

Human-AI systems that reflect and support diverse human patterns: multilingual and multicultural AI, AI alignment (pluralistic alignment, cooperative AI, scalable oversight, evaluation, mechanistic interpretability), interaction-centric AI (human-AI collaboration, human-AI interaction), and AI ethics.

EDUCATION

Minerva University, College of Computational Sciences

Sep 2021 — May 2025

B.S in Computational Sciences (Machine Learning and Statistics), GPA: 3.7/4.0

San Francisco, CA, USA

- Relevant Coursework: Machine Learning (A), AI Ethics, Bayesian Modeling (A), Statistical Modeling and Causal Inference (A), Optimization Methods (A), Probability and Statistics (A-), Software Engineering
- Certificates: Natural Language Specialization (deeplearning.ai, 2023), Machine Learning Specialization (2022)
- Self-study: AI Alignment (ARENA, 2025), Introduction to AI Alignment (Bluedot Impact, 2025)

RESEARCH EXPERIENCE

AI Safety Research Mentee

Sep 2025 — Present

Remote

• Topic: Scaling behavior of chain-of-thought monitoring

Machine Learning Research Assistant

Algoverse AI Research (Advisor: Eyon Jang)

Jun 2024 — Aug 2024

AI & Mixed Reality Lab, Landshut University of Applied Sciences

Landshut, Bavaria, Germany

- Advisors: Prof. Sandra Eisenreich and Prof. Eduard Kromer
- Topic: 3D object detection pipelie using PointPillars algorithm on standard and synthetic LiDAR point cloud datasets

Causal Inference Research Intern (Replication and Extension)

Nov 2023 — Dec 2023

Minerva University (Advisor: Prof. Alexis Diamond)

Remote

- Replicated and extended <u>Chrisinger (2021)</u>'s analysis of Philadelphia's SNAP benefit redemption in R, analyzing policy impacts across 4 counties and 50+ months of longitudinal data
- Identified critical limitations in dataset reliability and magnitude discrepancies between original and replicated results
- Conducted new leave-one-out robustness analysis on synthetic control models, showing model instability

TEACHING & MENTORING EXPERIENCE

• Curious Cardinals, High School Passion Project, Mentor	Oct 2025 - Present
• Minerva University, PR51 Programming with Python, Peer Tutor and Data Analyst	Spring 2025
• Minerva University, FA51 Algorithmic Thinking and Game Theory, Lead Teaching Assistant	Spring 2023, 2024
• Minerva University, FA50 Formal Logic, Probability and Statistics, Lead Teaching Assistant	Fall 2022, 2023

OPEN-SOURCE

Open-source and Eval Dataset Contributor @ HumaneBench

Oct 2025 - Present

• Using Pydantic, Inspect Evals framework to build new human-friendly benchmark for AI

Lead Design Engineer @ SEACrowd

Aug 2025 - Present

• Main designer, developer and maintainer of <u>seacrowd.org</u> website (Jekyll, Bootstrap)

Dataset Contributor @ Humanity's Last Exam

Feb 2025

SELECTED PROJECTS

Astro Academic Portfolio Theme for Researchers (github.com/mychiffonn/website)

Aug 2025 — Oct 2025

High-performance academic theme, enabling fast, accessible, and multilingual publishing of publications and technical blogs while ensuring top-tier SEO (80+) and Lighthouse (100) scores using Astro, TailwindCSS and shaden/ui

Mnemonic Generation for Vocabulary Learning (github.com/mychiffonn/mnemonic-gen) Oct 2024 — Mar 2025

- Designed an AI chatbot that generated diverse and memorable mnemonic devices for learning and retaining vocabulary, synthesizing 50+ papers across linguistics, psycholinguistics, language education, and large language models
- Implemented a Direct Preference Optimization (DPO) pipeline for preference modeling on Gemma3-1b using 500 human and LLM-annotated preference pairs (on memorability, imageability, and other learning retention measures)
- Utilized chain-of-thought distillation from a teacher model (DeepSeekR1) to instill linguistic chain-of-though reasoning to a student model (Gemma3-1b) through supervised fine-tuning

TECHNICAL SKILLS

- Programming Languages: Python, TypeScript, R, SQL, Bash
- Machine Learning & Statistics: PyTorch, trl, unsloth, scikit-learn, LangGraph, LlamaIndex, SciPy, PyMC
- Web: React, Astro, Express, FastAPI, PostgreSQL, Flask, Jekyll, TailwindCSS, shadcn/ui
- Tools & Technologies: Git, Docker, Render, Railway, Netlify, LaTeX, Zotero, Typst