My (Chiffon) Nguyen

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RESEARCH INTERESTS

Human-AI systems to reshape how people access, trust, and collaborate around *knowledge*. My interests include 1) multilingual and cross-cultural adaptation, 2) AI alignment, knowledge editing and unlearning, memory mechanisms, and 3) human-AI collaboration such as human-AI bidirectional alignment, synergy, and cooperative AI.

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, AI Ethics, Bayesian Modeling, Statistical Modeling and Causal Inference, Optimization Methods, Software Engineering
- Self-study: <u>Advanced Webdev</u> (CodePath, 2025-ongoing), <u>ARENA AI Safety</u> (2025), <u>Natural Language Specialization</u> (deeplearning.ai, 2024), <u>Machine Learning Specialization</u> (deeplearning.ai, 2022)

RESEARCH EXPERIENCE

Capstone/Thesis: Mnemonic Generation via Chain-of-Thought Distillation

Oct 2024 — Mar 2025

Minerva University (Advisor: Patrick Watson)

San Francisco, CA, USA

- Developed an AI system that generate mnemonics for advanced English vocabulary learning by leveraging linguistic features (such as etymology, morphology, phonetics, orthography)
- Implemented chain-of-thought distillation pipeline: generated 10k synthetic reasoning examples from DeepSeekR1 teacher model, then fine-tuned Gemma3-1b student model using LoRA (rank-16) via HuggingFace transformers and trl libraries
- Applied Direct Preference Optimization (DPO) on 500 accepted-rejected pairs to align model outputs with mnemonic effectiveness criteria (memorability, clarity, and strength of association), achieving statistical significance

Machine Learning Research Assistant

Jun 2024 — Aug 2024

AI & Mixed Reality Lab, Landshut University of Applied Sciences

Landshut, Bavaria, Germany

- Implemented 3D object detection pipeline using LiDAR point clouds and PointPillars algorithm in PyTorch and NVIDIA TAO Toolkit for autonomous navigation research
- Conducted comparative analysis of model performance across standard vs. synthetic datasets

Causal Inference Research Intern (Replication and Extension)

Nov 2023 — Dec 2023

Minerva University (Advisor: Professor Alexis Diamond)

Remote

• Replicated and extended <u>Chrisinger (2021)</u>'s causal inference of Philadelphia's beverage excise tax effects on SNAP benefit redemption using synthetic control in R; identified limitations in claimed effect size of the policy and dataset

TEACHING EXPERIENCE

Minerva University

Lead Teaching Assistant, PR51 Programming with Python

Spring 2025

- Taught weekly labs for 40+ first-year students covering computer systems, Python fundamentals, object-oriented programming, debugging, security, and data structures
- Produced data-driven recommendations using Google Drive API, Google Sheet trackers, student and tutor surveys

Lead Teaching Assistant, FA50/FA51 Formal Analyses

Fall 2023 - Spring 2024

• Guided 100+ freshmen per semester in formal logic, probability, and algorithmic thinking during office hours. Provided personalized feedback on 25 quizzes and assisted grading three assignments.

COMMUNITY ENGAGEMENT & SERVICES

- Jul 2025 Present: Communication and Software Engineer at <u>SEACrowd</u> (AI research for Southeast Asia), building website, managing crowdsource data annotation, and running small-scale experiments
- Jul 2025 Present: Volunteer at CommonCrawl, helping with web language crawl and identification

SELECTED PROJECTS

Astro Scholar Theme (github.com/mychiffonn/astro-academic)

Aug 2025 — Present

- Academic portfolio template with 50% faster rendering and reduced memory with caching
- Support publication parsing from bibtex and technical blogging with Markdown, MDX, KaTeX, and code highlighter
- 80+ SEO score, 100 Lighthouse scores, with internationalization and timezone support

SeizureSavvy (github.com/mychiffonn/SeisureSavvy)

Feb 2024 — Apr 2024

- Managed a team of 4 to build a Progressive Web App for intuitive seizure management with machine learning-based predictive alerts in Flask (Python), React, and Chakra UI
- Enhanced data logging and medication tracking, increasing user data accuracy by 35%
- Conducted code reviews in Python and React JavaScript, cutting 40% critical bugs and enhancing application stability

SKILLS

- Programming Languages: Python, TypeScript, Bash, R, SQL
- Machine Learning & Statistics: HuggingFace's trl, transformers, PyTorch, sklearn, llamaindex, PyMC, scipy
- Web Frameworks & Tools: Astro, React, Tailwind CSS, Flask, Jekyll, Bootstrap