Ethan Hellman

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Education

Stanford University

B.S., M.S. in Computer Science (Human-Computer Interaction, Artificial Intelligence) 3.90 GPA

- Coursework: Applied Machine Learning, Deep Learning for Computer Vision, Natural Language Processing with Deep Learning, Large Language Models, Machine Learning on Embedded Systems, Cloud Computing, Deep Multi-Task and Meta Learning, Human-Computer Interaction, Design and Analysis of Algorithms, Self-Improving AI Agents, Reinforcement Learning,
- Technical: Python, C++, JS, TypeScript, PyTorch, TensorFlow, SQL, MongoDB, Node.js, React, AWS, GCP, K8s, Docker

WORK EXPERIENCE

Generative AI Researcher	April 2025 – Present
• Pioneering multi-modal joint representation learning across NVIDIA's diverse datasets t	Santa Clara, CA
• Developing tooling for cross-modal transfer learning and pipeline for synthetic data generation for training augmentation	
Software Engineer	$\frac{1}{1000} = \frac{1}{1000} = 1$
Gridspace	Los Angeles, CA
• Engineered company-wide CLI Python, Bash, Docker, Kubernetes, GCP data prep tool	increasing developer efficiency 5-10x.
• Curated a 30,000+ hour conversational audio corpus with Scrapy and ffmpeg for ASR training, optimizing for performance.	
Software Engineer	June 2022 – September 2022
Rebellion Defense	Washington, D.C.
• Developed Python, PyTorch-based target detection, tracking pipeline, fusing electro-optical, infrared sensor data for the DoD.	
• DenseFuse, YOLOv5, StrongSORT++ pipeline trained on FLIR and TarDAL for perform	mant target tracking.
Co-Founder, Director	April 2020 – June 2024
• Spearheaded product development launching innovative virtual networking platform to	New York, NY
• At 19 secured \$1M+ in funding, driving rapid growth to over 100,000 users through strategic leadership and product scaling	
Head Course Assistant	Soptombor 2024 June 2025
CS 329M: Machine Programming & MS&E 297: Hacking for Defense	September 2024 – June 2025 Stanford, CA
• Facilitated graduate-level course on automating software development with learned index	x structures, NCC, and LLMs for code.
• Mentored teams applying Lean methodology to solve DoD/IC challenges in the H4D national security innovation program.	
Research Assistant	September $2023 - Present$
Stanford Institute for Human-Centered Artificial Intelligence (HAI)	Stanford, CA
• Contributed to AI Policy and Governance section in 2024 AI Index Report, analyzing al	l US and EU regulations to date.
• Developed automated data collection system using Scrapy and GPT models to streamline future report compilation.	
Research Assistant	January 2023 – June 2024
Stanford Machine Learning Group	Stanford, CA
• Benchmarked multi-modal VLNIs for wellpad detection and classification from satellite in	nagery for climate change monitoring.
• SOTA models + techniques with e.g., VII-B, ResNet, Swin backbones, LoRA, ProtoNet, Adapters to improve performance.	
Project Work	
AppBench: Benchmarking AI-Generated Web Applications	
• Industry-first framework with Replit evaluating AI-generated web UX via automated interaction and structured reasoning.	
Geography-Aware Few-Shot Remote Sensing Scene Classification	
• Applied MAML to fine-tune RemoteCLIP for few-shot remote sensing scene classification using semantic injection on fMoW.	
Crawlr: Large-Scale Open Source Code Search	
• Scalable search using Codex embeddings, FAISS, and Flask backend. Parsed GitHub repos at scale, built React UI for querying.	
• Spearheaded research that transformed financing for SMBs, enabled nationwide program implementation expanded market	
FBI-Sponsored Bioeconomic Innovation Streamlining System	

• Researched national bioeconomy protection strategies, proposing streamlined research collaboration system to FBI.

Nuovo News Sharing

• Developed iOS app using React Native, Firebase, Figma for personalized news curation and social sharing with gamification.

LEADERSHIP & HONORS

Student Representative, Stanford Board of Trustees Best-In-Class Projects: CS147 HCI, CS329M Machine Programming Lead, Stanford AI Alignment (SAIA) Co-founder and Captain, Dalton Computer Science Team Record Holder, Dalton Egg Drop Challenge Stanford, CA

Present - June 2025