Jeremy Wayland

Machine Learning Researcher | Founder

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Machine learning researcher and founder specializing in geometric deep learning and scalable AI infrastructure. Experienced in developing production ML pipelines (Krv Labs) and leading representation learning research (AIDOS Lab). Passionate about transforming complex enterprise data into reliable, production-grade intelligence.

TECHNICAL SKILLS

- Docker
- Kubernetes
- Terraform
- FastAPI
- Next.js
- Figma
- PyTorch
- WandB
- SLURM
- OpenAI SDK
- LangGraph
- Neo4J

EXPERIENCE

KRV LABS — *Founder and AI Lead* *June 2023 - Present*

- Developing **a cloud-native adapter platform** that dynamically *converts fragmented enterprise data into standardized, AI-ready infrastructure*—reducing integration time and cost for custom vertical AI deployments.
- Led **healthcare ML projects**, including a UTI prediction model for CHOC Children's—deployed via *FastAPI* backend and *Node.js* mobile interface used by urologists in-clinic.
- Developed custom **multi-agent Recruitment Assistant** via *graphRAG*, leveraging graph-based reasoning to assess candidate success from historical ATS data.

HELMHOLTZ MUNICH — *Doctoral Researcher* *August 2022 - Present*

- Leading research projects in **geometric deep learning**, developing open-source frameworks (Rings, Scott) for graph structure evaluation and representation robustness. *Publications in NeurIPS 2023 and ICML 2025.*
- Leading **representation learning** publications (Presto) using topology and geometry to analyze embedding sensitivity in large language models. *Published at ICML 2024*.
- Collaborating on high-impact, international projects including **coal-plant phaseout strategies** and the efficacy of **care delivery networks** (Thema, Apparent). *Publications in Nature Energy & Communication in CS.*

EDUCATION

TECHNICAL UNIVERSITY OF MUNICH — *Dr. rer. nat. in Mathematics (in progress)* *August 2022 - Present*

- Research in mathematics for machine learning with three first-author publications (NeurIPS, ICML) and two applied papers in high impact journals (energy & medicine). *Expected Magna Cum Laude graduation*.

CHAPMAN UNIVERSITY — *Msc. Computational Data Sciences and Machine Learning* *August 2020 - June 2022*

- Coursework in *AI, statistics, and advanced computing* (GPA 3.8). Conducted research in topology and category theory; served as **grant-funded research scientist** at *CHOC's* Computational & Data Science Research Team.

UNIVERSITY OF CALIFORNIA, BERKELEY — *B.Sc. in Mathematics (Honors) and Astrophysics* *August 2015 - December 2019*

- Rigorous coursework in physics & mathematics. Completion of **honors thesis** in category theory & logic. Contributions in *theoretical astrophysics* (w/ R. Anantua) and *observational cosmology* (w/ A. Filippenko).

PUBLICATIONS

NeurIPS 2023 (*Curvature Filtrations for Graph Generative Model Evaluation*); ICML 2024 (*Mapping the Multiverse of Latent Representations*); ICML 2025 (*Principled Evaluations of Graph-Learning Datasets*); Nature Communications in Computer and Information Science (*Physician Referral Networks via Ricci Curvature*); Nature Energy (*Strategies to Accelerate US Coal Power Phaseout*)