Gil Pasternak

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PROFESSIONAL SUMMARY

Research Scientist with a deep passion for leveraging artificial intelligence to tackle complex, real-world challenges. I've contributed to efforts around language model development and interpretability, with a focus on pushing the boundaries of understanding and control in modern NLP systems. Gil's interests lie in research roles in the domains of Natural Language and Interpretability.

RELEVANT PROFESSIONAL AND RESEARCH EXPERIENCE

Member of Technical Staff, Research

Fastino AI / March 2025-Present

- Research Scientist working on custom efficient architectures for IE + LLM Agents.
- First Author: **Beyond Reactivity: Measuring Proactive Problem Solving in LLM Agents**
- Co-author: **GLiNER2: An Efficient Multi-Task Information Extraction System with Schema-Driven Interface.**

NLP Research Engineer

Loris.ai (acquired by Contentsquare) / March 2023-September 2023, March 2024-October 2024

- Product-focused researcher. A few projects include: a deployed "Talk to your data" system, deployed content annotation models (for analytics product), internal synthetic data product.
- Owned company-wide LLM infrastructure for the intelligent and effective use of Language Models. Using this, deployed several Language Models (both public and custom) to production.

Research Assistant

Laboratory for Emerging Intelligence / August 2023-June 2025

- Co-author: **Measuring Risk of Bias in Biomedical Reports: The RoBBR Benchmark**. Built initial version of UCSD "AI Tutor", currently used across many UCSD classrooms.
- Wrote thesis**: K-Inverse-RFM: A Modified RFM that bridges the gap to Neural Networks for Data-Corrupted Mathematical Tasks**, currently in process of conference submission.

Research Assistant

Carter Lab, UCSD Department of Medical Genetics, San Diego / August 2022-Present

- Worked to develop neural networks to understand SNP Interactions and their contribution to cancer risk. Co-author: **VADEr: Vision Transformer-Inspired Framework for Polygenic Risk Reveals Underlying Genetic Heterogeneity in Prostate Cancer**.

Bioinformatics-AI Intern

NVIDIA / June 2021 – October 2021

- Created deep learning microservices for drug discovery and parallelized deep learning models across GPUs with Kubernetes. Led containerization efforts. Tuned models with PyTorch.

EDUCATION

University of California, San Diego - Masters
GPA: 4.0

M.S. Computer Science, AI Specialization

Relevant Experience

- AI: Probabilistic Reasoning and Learning, Machine Learning, Deep Learning, NLP
- Seminar Presentations: "Word2Vec", "The Architecture of GPT-2"
- TA for Artificial Intelligence and Theory of Computation

University of California, San Diego - Bachelors
GPA: 3.968

B.S. Applied Mathematics Major, Computer Science Minor (graduated Mar 2023)

Relevant Coursework

- Linear Algebra, Calculus, Probability, Stats, Stochastic Processes, Real Analysis, Optimization
- Object Oriented Programming, Advanced Data Structures, Systems Programming, Theory of Computation, Theoretical Foundations of Data Science (Algorithms).
- Data Science, Machine Learning, Data Mining, Recommender Systems.

Recipient of **2022-2023 Physical Sciences Dean's Undergraduate Award for Excellence**

ADDITIONAL SKILLS

- Deep Learning Frameworks: PyTorch (fluent), Tensorflow (proficient)
- Programming Languages + VC: Python (fluent), Java, C, C++, Git, SQL, R
- Mathematical Foundations of Neural Networks, Empirical Deep Learning, PCA, Kernels, SVM