Evan P. Taylor

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EDUCATION

Boston College   Chestnut Hill, MA
Mathematics B.A., Computer Science B.A.   *Aug. 2021 – May 2025*
- Relevant courses: Machine Learning, Deep Learning, Computer Vision, Linear Algebra, Differential Equations, Differential Geometry

The Browning School   New York, NY
High School; Graduated Cum Laude   *Aug. 2017 – May 2021*
- SAT: 1510
- GPA: 3.8

EXPERIENCE

Model Evaluator and Prompt Engineer   Jan 2024 - May 2024
Scale AI   *Remote*
- Assisted in training and evaluating generative AI models using RLHF.
- Formulated complex, quantitative queries tailored to test the reliability and adaptability of the models.
- Rigorously reviewed model responses to check for logical errors and hallucinations–involving writing robust test cases to confirm generated code works efficiently and effectively.
- Introduced a novel form of complex prompts that significantly enhanced the depth and adaptability of model training.

Computer Science Tutor   Oct 2022 - May 2023
Boston College   *Chestnut Hill, MA*
- Served as a dedicated Computer Science Tutor at Boston College, providing personalized academic support to freshmen students enrolled in Computer Science I and II courses.
- Helped students master a wide variety of content covered in the aforementioned courses beginning with an introduction to programming in Python, through data structures and sorting algorithms in Java.
- Excelled at distilling complex topics into easily understandable content, effectively bridging the gap between student's foundational knowledge and more advanced concepts.

PROJECTS

Gradient Descent on Riemannian Manifolds | *Research Paper*   April 2024
- Researched and theoretically verified a novel adaptation of the gradient descent algorithm that utilizes the intrinsic geometric properties of Riemannian manifolds, effectively improving optimization techniques for data naturally residing on manifolds.
- Leveraged differential geometry constructs such as geodesics and exponential maps, enabling efficient minimization paths on manifolds, which are crucial for enhancing the performance of machine learning models in non-linear domains.
- Conducted rigorous theoretical analysis to validate the efficacy of the Riemannian gradient descent method over traditional optimization approaches.

GitHub Repository Chat | *Python*   December 2023
- Implemented a conversational interface allowing users to interact with GitHub repositories using natural language using Retrieval Augmented Generation (RAG) techniques.
- Utilized the LangChain framework to streamline document loading, parsing, and code splitting for efficient embedding.
- Integrated OpenAI's text-embedding model to embed processed chunks and their GPT-4 model for chat.
- Utilized the Chroma's vector database to store and quickly retrieve code chunks during user interactions.
- Applied strict rule-based strategies to guide the chat component through complex problems and to provide multiple perspectives.