### Galen Topper

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**EDUCATION**

B.S., Computer Science (Artificial Intelligence concentration), **Stanford University**, Stanford, CA Expected 06/2025

GPA: 3.4 (of 4)

*Relevant Courses:*

***Computer Science:*** Algorithmic Analysis, Operating System Principles, Natural Language Processing, Programming Abstractions, Computer Organization and Systems, Computer Science Graphics and Imaging, Machine Learning,

Artificial Intelligence, Logic Programming

***Mathematics:*** Mathematical Foundations of Computing, Probability for Computer Science, Linear Algebra and Multivariable Calculus

**SKILLS**

*Computer*: Python, Swift, Java, C++, C, JavaScript, HTML, CSS, **Microsoft Suite** (Excel, Powerpoint), **Adobe Suite** (Photoshop, Illustrator, Aftereffects, Lightroom), Blender

* Designed a virtual memory region in Linux to allocate physical pages to virtual memory.
* Coded a multiplayer remake of the game “Snake” using Java and Sockets
* Developed a 3D Tank Bullet Shooter with Unity
* Created a Heap Allocator Using C which allocates and reallocates memory on the heap
* UX and Website Design, graphics skills with Blender and Illustrator

*Language*: Spanish (Proficient, strong reading & conversation skills)

**RELEVANT EXPERIENCE**

**LLM Research (RAG) Intern,** Mentor 126, Stanford, CA 11/2024-ongoing

* Researching education technology retrieval augmented generation (RAG)
* Created progress graphs for educational learning models to ensure salespeople knowledge
* Designed an agentic AI system to ensure learner data is capably tracked

**Co-founder,**MarketFit, Stanford, CA 11/2024

* Developed an application to help users reach their target audience using LLM-driven advertising Created progress graphs for educational learning models to ensure salespeople knowledge
* Created the mobile application GUI using Swift interfacing with LLM API calls

**LLM Research Intern,** Cornerstone Research, Menlo Park, CA 06/2024-09/2024

* Developed a comprehensive embedding model evaluation pipeline for the benchmarking of third-party models
* Researched state of the art embedding model development, and improved the quality of semantic retrieval
* Built asymmetric semantic search functionality into RAG pipeline, using re-ranker model to improve result quality

**Data Science Center Intern,**Cornerstone Research, Menlo Park, CA 05/2023 – 08/2023

* Designed a natural language processor (NLP) pipeline for Document Q/A using a semantic search algorithm
* Ran experiments to test semantic search model on 200+ page documents & adapted machine learning model accordingly
* Implemented APIs for the processing and understanding of user queries.
* Coded a semantic chunk filter system that portioned large documents into smaller chunks.
* Developed an executive presentation to succinctly convey key takeaways & technical concepts to non-technical partners.

***D1 Student Athlete***, Stanford Varsity Track and Field, Stanford, CA 09/2021 – Ongoing

* Balanced 20 hours per week of athletic activities while maintaining a demanding academic schedule.
* Exercised strong leadership skills and self-discipline on and off the track