Vikram Srinivasan

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Education

Stanford University — Palo Alto, CA

***Master of Science in Computer Science**, Concentration in Artificial Intelligence* — *Jan. 2025 - June 2026*

***Bachelor of Science in Symbolic Systems**, Concentration in Natural Language* — *Sep. 2021 - Dec. 2025*

Experience

CoStar Group — Washington, D.C.

***Machine Learning Intern** | Python, PyTorch, AWS, Streamlit* — *June 2025 - Sep. 2025*

- Developed a multi-label image classification pipeline on AWS for detecting kitchen features in real estate imagery, augmenting training data using LLM-assisted labeling techniques.
- Trained and fine-tuned deep learning models (CNN, ViT) using PyTorch, achieving over 90% average precision on key object classes through iterative evaluation and hyperparameter tuning.
- Deployed a Streamlit-based dashboard for real-time model visualization and human-in-the-loop validation, accelerating dataset curation and error analysis.

***Software Engineering Intern** | Python, SQL, TypeScript, PyTorch, AWS, Git* — *June 2024 - Sep. 2024*

- Developed an AI-powered search engine for over 100,000 condo buildings, leveraging PyTorch and multimodal embeddings to enhance search accuracy and relevance.
- Designed and implemented a user-friendly interface that facilitates seamless interaction and query input.
- Built a comprehensive back-end API within an AWS environment, efficiently handling data with SQL and Python to generate vector representations of both text and image inputs. Configured and used OpenSearch to significantly improve the accuracy and scalability of search results.

BSE Global (Brooklyn Nets) — Brooklyn, NY

***Data Analytics & Insights Intern** | Python, MySQL, Tableau* — *June 2023 - Sep 2023*

- Led data science and analysis efforts to obtain vital business intelligence that informed key strategic decisions for the Brooklyn Nets, New York Liberty, and Barclays Center.
- Built a Machine Learning model using scikit-learn to classify customer segments, resulting in targeted marketing strategies and improved customer acquisition rates.
- Developed a Natural Language Processing (NLP) algorithm to analyze sentiment in sales rep-customer phone calls, aiming to refine sales strategies and performance.

Projects

Geovision: Image Geolocation with ViTs | github.com/vik-srinivasan/GeoGuessrCV | *Python, PyTorch*

- Fine-tuned Vision Transformer (ViT-B/16) and ResNet-50 architectures on a 104-class country-level geolocation task using noisy, real-world GeoGuessr images; achieved 88.3% Top-5 accuracy, surpassing human baselines by 3–5× and outperforming GPT-4o in Top-5 accuracy.
- Built an end-to-end geolocation pipeline with Hugging Face Transformers and Datasets APIs, conducting model-specific error analysis, class-balancing experiments, and hyperparameter tuning to optimize performance across underrepresented regions.

RepWise | github.com/vik-srinivasan/RepWise | *TypeScript, React Native, CSS, Supabase*

- Designed and developed a React Native mobile application that generates personalized workout plans using AI, integrating the Gemini API to tailor workouts based on user preferences, workout history, and fitness goals.
- Developed a backend integration with Supabase to store and retrieve workout history, supporting data validation and relational database management.

SpotifyTracker | github.com/vik-srinivasan/SpotifyTracker | *JavaScript, React Native, CSS*

- Developed a Spotify Tracker app using React Native and Spotify's Web API to display users' top tracks and artists based on customizable time ranges.

Multilingual Narrative Detection with XLM-R | github.com/vik-srinivasan/MultiNarDetection | *Python, PyTorch*

- Developed a multi-task transformer model (XLM-R) to perform concurrent Named Entity Recognition and sentiment analysis for narrative detection in multilingual social media text, focusing on political discourse.
- Engineered a two-phase fine-tuning approach and leveraged Bayesian hyper-parameter optimization, improving model performance across diverse linguistic datasets.