Abinesh Srinivasan

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EXPERIENCE

Data Science Intern   **May 2025 – Present**
Luhdorff & Scalmanini (LSCE)   *Woodland,CA*
- Built a full-scale enterprise-level **RAG (Retrieval-Augmented Generation)** desktop application, fully **deployed locally** on a dataset exceeding 500 GB in size
- Engineered a state-of-the-art **local vector database**, achieving over **90%** document retrieval **accuracy** with **query speeds** under **1** second.
- Collaborated with California **municipal county governments** to analyze **500K+ acres** of ranch land, evaluating water usage across various crop types and environmental factors.

Research Assistant   **Dec 2024 – Apr 2025**
California State University   *Chico, CA*
- Devised **Polymath GNN**, unifying 10+ knowledge graphs, enabling 30% faster discovery and cross-domain innovation
- Engineered a **GNN-RL pipeline**, accelerating hypothesis generation by 50%, improving **link prediction** by 25%, and reducing **data fragmentation** by 40%.
- Designed a **self-learning feedback loop**, increasing validated research connections by 30%, enhancing **interpretability** by 35%, and optimizing **adaptability** across 5+ disciplines.

Data Science Intern   **Mar 2024 – Jul 2024**
Intellect Design Arena   *Chennai, IND*
- Developed a **credit scoring model** using **NVIDIA RAPIDS** to process a 100,000+ record dataset efficiently, achieving 94% accuracy.
- **Preprocessed** customer data by handling missing values, encoding categorical variables, and scaling numerical data, enhancing data quality by 25%.
- Conducted **Exploratory Data Analysis (EDA)** with Python to uncover patterns in income, credit history, and repayment behavior, improving feature relevance by 20%.

TECHNICAL SKILLS

Programming & Frameworks: Python, Java, JavaScript, R, SQL/NoSQL, React, Flask, Spring, React Native; Git, Android Studio

ML/DL & Data Science: TensorFlow, PyTorch, scikit-learn, Pandas, NumPy, NVIDIA Rapids; Reinforcement Learning

Generative AI & RAG: Hugging Face, Transformers, prompt engineering, fine-tuning; FAISS, Pinecone, qdrant

Computer Vision, NLP & Cloud: OpenCV, DL-CV models, NLP; AWS, GCP, Firebase, Docker, Kubernetes

PROJECTS

Automated Execution & Response Orchestrator - AERO   *TreeHacks, Stanford*
- Architected AERO, a high-performance AI assistant **integrating LLMs, vision processing, and automation,** executing 100+ system-level operations with 95% precision in intent recognition.
- Formulated a **parallel processing pipeline**, optimizing real-time execution latency by 60%, **automating workflow orchestration** across 10+ integrated platforms.

Lex.ai: An AI lawyer application   *CalHacks, UC Berkeley*
- **Fine-tuned** Falcon-7b LLM on 36000 legal cases creating **70 million token size of trainable data** on Google Cloud instance.
- Built a **Retrieval-Augmented Generation** (RAG) system on top of Lex.ai to enable persistent information retention, enhancing the model's ability to access and utilize contextual data effectively.

EDUCATION

California State University   **Aug 2024 – May 2026(Present)**
Master of Science in Data Science and Analytics   *Chico, CA*
VIT University   **Jul 2019 – May 2024**
Master of Technology in Computer Science Engineering (Integrated)   *Vellore, IND*
Recent Activities: Student Ambassador, LA Hacks 2025, TreeHacks 25, Cal Hacks 11.0, Nvidia's Rapid Hackathon

CERTIFICATIONS

Supervised Machine Learning: Regression and Classification   *Stanford | Online*

Single Page Web Applications with AngularJS   *Johns Hopkins University*