JAYANTH PASUPULATI

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Education

University of California, Davis *09/2020 - 06/2025*
Cognitive Science - Computational Emphasis (B.S.), Minor In Computer Science

Objective

Aspiring AI/ML Engineer with a strong foundation in computational cognitive science and hands-on experience in LLM fine-tuning, multi-agent AI, and data extraction. Skilled in natural language processing, privacy-preserving AI, and generative AI with a focus on bridging cutting-edge research and real-world applications. Passionate about developing scalable, secure, and responsible AI solutions that enhance automation, decision-making, and human-AI collaboration.

Technical Skills

- **Programming Languages: Backend**: Python, C, C++, Java, JavaScript
- **Programming Languages: Frontend**: React, HTML, CSS
- **Databases**: MySQL, MongoDB
- **Libraries**: Pandas, Numpy, Matplotlib, PyTorch, TensorFlow, Seaborn, SciPy, Scikit-Learn, Spring Boot
- **AI/ML Tools**: OpenAI, Gemini, Mistral AI, Llama, LlamaIndex, LangChain, Hugging Face, Pinecone

Relevant Coursework

– Artificial Intelligence – Machine Learning – Computational Linguistics – Cognitive Neuroscience

Research Experience

Student Researcher *09/2024 - PRESENT*
Tagkopoulos Lab Davis, CA

– Applied machine learning techniques to improve predictive modeling in drug development, optimizing the transition from preclinical to clinical research.
– Evaluated and compared various machine learning classifiers, identifying the most effective model for analyzing biomedical data
– Built and managed a large-scale database of preclinical research papers, with more than 100,000 papers, leveraging advanced AI models for automated data extraction and analysis.

Student Researcher *02/2025 - PRESENT*
UCSB Natural Language Processing Group Remote

– Created a dataset of 500 scenarios to train AI multi-agent systems with a focus on privacy-preserving interactions.
– Evaluated AI agent interactions using multiple performance metrics, ensuring clarity and effectiveness in safeguarding user privacy.
– Developed and implemented strategies to enhance AI agents' ability to maintain privacy while facilitating natural and coherent communication.

Certification

AI-102: Azure AI Engineer Associate *06/2024*
Microsoft Antioch, CA

– Designed and deployed end-to-end AI solutions leveraging Azure AI services, including Azure OpenAI and Azure AI Search.
– Developed secure AI models for natural language processing, computer vision, and generative AI using Azure AI tools and APIs.
– Designed and fine-tuned knowledge mining and document intelligence solutions for structured data extraction.