Nitish Nagesh

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Education

Ph.D in Computer Science, University of California Irvine, GPA:3.83/4.0, From 09/21 to 05/25 (Expected)
M.S in Computer Science, University of California Irvine, GPA:3.83/4.0, From 09/21 to 06/23

Skills

- Python, R, C, C++, SQL, PyTorch, TensorFlow, Keras, SciPy, Scikit-learn, Pandas, NumPy, Matplotlib, Tableau

Work Experience

Research Scientist, University of California Irvine (UCI)
Irvine, CA | From 06/22 to Present
- Develop personalized food **recommendation systems** using a 3.5+ years **multidimensional dataset** and integrate with **Large Language Models (LLMs)** to improve health outcomes and enable preventative healthcare.
- Building **causal inference** and **explainable-AI** software to improve wellbeing through timely dietary interventions by leveraging **Python**, **machine learning** tools, **software engineering** and **data analysis** skills.
- Designed novel **open-source** food and well-being **database framework and data collection schema** atop **Google's** schema leveraging **knowledge graphs** encouraging standardization in food-related dataset collection.

Data Scientist Research Intern, iHealth Labs
Sunnyvale, CA | From 06/23 to 09/23
- Deidentified, aggregated, and analyzed electronic health record-style (EHR) data for 8000 patients using **Python, SQL and Jupyter Notebooks** ensuring **HIPAA compliance** for diabetes and hypertension management.
- Led retrospective **data analysis** and **applied machine learning** strategy development to assess the impact of disease management interventions on clinical outcomes.
- Presented research outcomes at the end of the program and working on **peer-reviewed publication** based on the results of the project ensuring effective **documentation** and **collaboration** across **cross functional teams.**

Deep Learning Researcher, University of California Irvine (UCI)
Irvine, CA | From 04/23 to 06/23
- Implemented and evaluated **image segmentation** pipeline for retina dataset using **TensorFlow** and **Segment Anything (SAM)** and achieved Intersection of Union (IoU) of 0.31 for optic disk and 0.08 fovea segmentation.
- Enabled automated retinal anomaly detection by leveraging **deep learning frameworks** such as **Keras**, **SciPy**, and **Scikit-learn** and other machine learning tools such as **Pandas**, **NumPy**, **Spark**, and **Matplotlib**.

Natural Language Processing Researcher, University of California Irvine (UCI)
Irvine, CA | From 04/22 to 06/22
- Applied **supervised learning** and **semi-supervised learning** techniques to classify presidential candidate speeches.
- Constructed and compared n-gram **language models** for in-domain and out-of-domain perplexities.
- Evaluated **text summarization** models using top-K sampling, nucleus sampling, beam search **decoding algorithms**.

Information Retrieval Engineer, University of California Irvine (UCI)
Irvine, CA | From 01/22 to 03/22
- Conducted Python-based crawling on **50000** URLs from ics.uci.edu domain to find page similarity and subdomains.
- Built search engine using **Flask, HTML, CSS** to query and retrieve top 20 matches enhancing **user experience**.

Machine Learning Engineer, University of California Irvine (UCI)
Irvine, CA | From 09/21 to 12/21
- Implemented **machine learning algorithms** including k-Nearest Neighbors (**kNN**), **Naive Bayes**, **linear regression**, **logistic regression**, **decision trees**, **neural network**s, and **clustering** to analyze and model datasets.
- Developed Python-based **reinforcement learning** agent using Monte Carlo Tree Search to solve Sokoban puzzle.
- Applied **computer vision** techniques like convolutional neural networks (**CNN**) to classify fashion-MNIST dataset and achieved 95.88% training accuracy and 93% test accuracy after hyper-parameter tuning and cross-validation.

Research and Development Engineer, Qualcomm
Austin, TX | From 03/21 to 08/21
- Developed Python tool to parse data from 5000+ logs of the **Qualcomm AI accelerator** saving **3x cycle time**.
- Triaged and debugged failures in **ML accelerators** SDK through feature engineering, building and evaluating models iteratively via **Python scripting** to improve performance **benchmarks**.