HARSH NITIN THAKKAR

1248 W Adams Blvd, LA, CA, 90007 | (323) 620-6938 | harshtha@usc.edu | LinkedIn | GitHub | Google Scholar

EDUCATION

University of Southern California — Los Angeles, USA
Master of Science: Computer Science (AI) — August 2023-Present
Coursework: - Analysis of Algorithms, Machine Learning
Working on the research project Federated Learning for Neuroscience with Professor Jose-Luis Ambite.

Pune Institute of Computer Technology (University of Pune) — Pune, India
Bachelor of Engineering: Information Technology with Honors in AL/ML CGPA: 9.55 — August 2019-May 2023
Coursework: - Machine Learning, Deep Learning, Artificial Intelligence, Cloud Computing, Database Management, Data Science & Big Data Analytics, Computational Statistics

EXPERIENCE

Association for Socially Applicable Research (ASAR) — Pune, India
Research Intern — October 2022-August 2023

- Collaborate in developing a geodatabase (**700,000 + entries**) using **R and Python** to assess healthcare accessibility within 30, 60, 120, and 240 minutes by walking and transport modes
- Generate strategic visualizations to enhance accessibility to Primary and Community Healthcare, Covid Testing, and Palliative care Centers across India

JyoSH AI — Pune, India
AI Intern — August 2022-June 2023

- Led the development of an AI-Powered Agricultural Robot's deep learning module for cotton crop health monitoring
- Conducted fine-tuning and comparative analysis of **YOLOv4, YOLOv5, YOLOv7, YOLOv8, and YOLO NAS models**
- Achieved 0.891 mean average precision deploying YOLOv5 on Robot leveraging **Jetson Nano**

Algo Analytics — Pune, India
Cloud Intern — July 2021-December 2021

- Built SaaS for stock price prediction with **AWS**, and **Natural Language Processing**
- Designed an interactive dashboard using **Angular** for insightful visualizations and analysis

PROJECTS

Easy Health (Python, TensorFlow, Flask) — November 2022

- Engineered a CNN-based web application with a remarkable 96.4% accuracy in detecting COVID-19, Breast Cancer, and Pneumonia from X-ray images

Agro.AI (React, Django, Python, Scikit-Learn) — July 2022

- Designed and developed a web application that forecasts agricultural yields with an accuracy rate of 87.19%
- Utilized crucial climatic variables such as rainfall, humidity, and soil type to generate location-specific predictions

Apartment Management System (Python, NodeJS, MongoDB) — November 2021

- Led the development of a comprehensive nationwide property exploration and rental web application, incorporating advanced predictive analytics with an accuracy rate of 93.29%
- Empowered users with the capability to effortlessly browse and register their properties for rent while also providing access to estimated property prices, enhancing their overall property management experience

SKILLS AND LANGUAGES

Programming Languages and Frameworks: Python, R, Java, C++, PyTorch, TensorFlow, Huggingface, Scikit-Learn, HTML, CSS, Javascript, SQL, MongoDB, React, Angular, Django, Flask, Seaborn, Matplotlib, and Streamlit
Tools and Technologies: Jupyter Notebook, RStudio, Tableau, AWS, Google Cloud, Linux, and Git

PUBLICATIONS

- Shah, **H., Thakkar**, H., Dharmadhikari, S. (2022). Potato Leaf Disease Detection using Sequential Models. (5th IEEE-International Conference on Advances in Science and Technology (ICAST)-2022)
- **Thakkar, H.**, Patil, A., Saudagar, O., Yenkikar, A. (2022). Sentiment and Statistical Analysis on Custom-Created Twitter Dataset for 2022 Russo-Ukrainian Conflict. (2023 International Conference on Intelligent and Innovative Technologies in Computing, Electrical, and Electronics)