

# HARSH NITIN THAKKAR

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## EDUCATION

### University of Southern California

Los Angeles, USA

#### Master of Science: Computer Science (AI)

August 2023- May 2025

Coursework: - Analysis of Algorithms, Machine Learning, Deep Learning, Web Technologies

### Pune Institute of Computer Technology (University of Pune)

Pune, India

#### Bachelor of Engineering: Information Technology with Honors in AI/ML CGPA: 9.55

August 2019-May 2023

Coursework: - Data Structure and Algorithms, Web Development, Object-Oriented Programming, Database Management, Operating Systems, Computer Network Security

## 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

## EXPERIENCE

### Association for Socially Applicable Research (ASAR)

Pune, India

#### Research Intern

October 2022-August 2023

- Collaborated in the creation of a geodatabase of over 700,000 Indian healthcare facilities using **R and Python** for optimal health infrastructure location
- Provided valuable insights into healthcare accessibility across different time frames and modes of transportation using **geospatial data science and analytics**
- Generated strategic high-resolution access-to-care maps for rural and urban regions to estimate and quantify the disparities

### 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

- Successfully built a SaaS solution, enhancing stock price prediction capabilities through **AWS and NLP**
- Designed an interactive dashboard using **Angular** which provided a user-friendly interface for visualizing and analyzing stock-related data, contributing to more informed decision-making

## PROJECTS

### Easy Health (Python, TensorFlow, Flask) [\[Github\]](#)

November 2022

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

### Agro.AI (React, Django, Python, Scikit-Learn) [\[Github\]](#)

July 2022

- Conceptualized and executed the design and development of a web application forecasting agricultural yields with a high accuracy rate of 87.19% using the Random Forest Regression Algorithm
- Implemented prediction models utilizing essential climatic variables, including rainfall, humidity, and soil type, to deliver location-specific forecasts

### Apartment Management System (Python, NodeJS, MongoDB) [\[Github\]](#)

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% using Linear Regression
- 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