Aishwarya Harpale

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EDUCATION

RUTGERS UNIVERSITY

MASTER OF SCIENCE, COMPUTER SCIENCE

Aug 2021 - May 2023 NJ, USA GPA: 4.0 / 4.0

SAVITRIBAI PHULE PUNE UNIVERSITY

BACHELOR OF ENGINEERING, COMPUTER ENGINEERING 2016-2020 | Pune, India CGPA: 9.04 / 10.0

LINKS

Website:// aish-where-ya Github:// aish-where-ya LinkedIn:// aishwaryaharpale

SKILLS

Languages

Java • Python • Javascript • Golang Jquery • PHP • HTML

Databases

 $\mathsf{MySQL} \bullet \mathsf{MongoDB} \bullet \mathsf{Firebase}$

Machine Learning

Tensorflow • Keras • OpenCV • Tensorboard

Other Technologies

Docker • Kubernetes • Git • Node.js React.js • Redux • Laravel

COURSES

- Introduction to Data Structures and Algorithms
- Mathematical Foundations of Data Science
- Introduction to Artificial Intelligence
- Machine Learning
- Computer Vision
- Massive Data Mining

ADDITIONAL

EXPERIENCE

- Research Assistant at The Abraira Lab: Full Stack and ML Explainability
- Teaching Assistant for CS439 : Introduction to Data Science

EXPERIENCE

KASTEN BY VEEAM | BACKEND ENGINEERING INTERN

June 2022 - August 2022

Created a reference architecture to integrate Argo Workflows with the open source project, Kanister. Also developed a pipeline to expose Prometheus metrics using Golang and Kubernetes to improve observability.

CAKESOFT TECHNOLOGIES | SOFTWARE DEVELOPER

Sept 2020 - July 2021

Developed Web Applications, designed various APIs and optimized performances of various microservices. Also wrote CI/CD pipelines for deployment of Web-Apps.

GOOGLE SUMMER OF CODE - LIBREHEALTH | OPEN SOURCE

DEVELOPER

May 2020 - Aug 2020

Worked on Low Powered Models for Disease Detection and Classification for Radiology Images. Experimented on models such as DenseNet, Inception, etc. using quantization and pruning techniques to improve model performance.

PERSISTENT SYSTEMS LTD. | PROJECT INTERN

June 2019 - May 2020

Research in the field of Explainable AI and Interpretable Machine Learning involving identification of biases in models trained on healthcare (Breast Cancer Prediction) and financial risk assessment (German Credit Risk Prediction) datasets.

PROJECTS

PATH PLANNING IN MAZES USING AI AGENTS

Designed and implemented various path planning agents using A-star, Repeated A-Star, Probabilistic Inference and Markov Decision Models.

COMMUNITY DETECTION IN GRAPHS

Built a library consisting of community detection algorithms such as Girvan Newman, Spectral Clustering and Louvain's method and performed visualization on Zachary's Karate Club and Planted L-Partition graphs.

CHEST-XRAY CLASSIFICATION AND LOCALIZATION

Developed a system for classification and localization of Chest-XRay images using DenseNet, Resnet and VGG. Built a website using Bootstrap and deployed it on a Flask server for the user to diagnose diseases.

PUBLICATIONS

- [1] A. Abid, P. Sinha, A. Harpale, J. Gichoya, and S. Purkayastha. Optimizing medical image classification models for edge devices. *Distributed Computing and Artificial Intelligence*, *Volume 1: 18th International Conference*, 2021.
- [2] U. Shah and A. Harpale. A review of deep learning models for computer vision. 2018 IEEE Punecon. 2018.