Srinarayan Srikanthan

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EDUCATION

WORCESTER POLYTECHNIC INSTITUTE

Masters in Computer Science with specialization in AI/ML
Graduated: May 2021
Cumulative GPA: 4.0/4.0

RAJALAKSHMI ENGINEERING COLLEGE

Bachelor of Engineering in Computer Science
Graduated: May 2019
Cumulative GPA: 8.3/10

PROJECTS

Image inference and generation from doodles | Classification of hand drawn images and recreating these images using Generative methods.

Content Based Video Description and Retrieval System | Image captioning of key frames generated from the video using key frame selection algorithm, blur detection using InceptionV3 and summarization using Glove models.

Baymax | An expert system for personalized healthcare assistant with inbuilt Chatbot based assistance.

Sentiment Analysis of movie Reviews | Analyse user comments to movie reviews using Transformers to determine user emotions.

Stud-e-book | An eBook reader with gesture recognition for hands-free functionalities and read aloud feature.

A survey paper on digital Watermarking techniques | Published in International Journal of Pure and Applied Mathematics (Scopus Indexed).

Smart Transportation system | Presented in 2nd International Conference on Communication and Electronics Systems (ICCES), Published in IEEEXplore.

Bioscore | A concept of user health index for specific ailments.

SKILLS

• Java • Python • C •C++• JavaScript
• SQL • HTML • CSS • XML • MATLAB
•Android Studio • PowerBI • AngularJS

EXPERIENCE

PAXERAHEALTH | AI Engineer

June 2021 - Present | Newton, MA

- Detection and pixel level segmentation of malignant and benign tumors and calcified veins on Mammograms annotated by radiologist with Image segmentation techniques.
- Identify the presence of over six types of Hemorrhage from stacks of images of CT scans and multiple ailments from Chest X-ray.
- Create segmentation of different body parts using various Image processing techniques and correction of segmentation of part done by radiologists.
- Perform image augmentation and segmentation, maintain data processing pipelines and deploy models using Docker and Flask.

DARPA - WPI | Research Assistant

May 2020 - June 2021 | Worcester, MA

- DeepSEAS predicts the presence of any symptoms of Influenza during the incubation period with a sensitivity of 78% using sensor data/surveys.
- It creates user clusters based on smartphone usage patterns, uses Coupled LSTM Autoencoders and a neural network to identify infected subjects.
- Sensor and audio data is analysed and modelled after binning the continuous values into time frames using statistical measures.
- Published in 2020 IEEE International Conference on Big Data.

STABILITY HEALTH | Student researcher funded by WPI

January 2020 - May 2020| Worcester, MA

- Utilize Semi-supervised modelling using Deep Neural network to stratify user risk levels with 82% accuracy to assist diabetes coaches with user management.
- Develop data visualization dashboards to improve/expedite decision-making for Stability Health and make recommendations using AI/ML to senior leadership on ways to better improve business operations.

THESIS

SMARTPHONE BASED TBI SENSING

- Identify the presence of TBI among soldiers, analyze its progression based on passively monitored mobile sensor data using AI/ML techniques.
- Collate, Featurize raw sensor data from over 25k subjects and identify TBI using Deep Anomaly Detection techniques on user clusters formed by Deep Embedded Clustering with a balanced accuracy of 88% and sensitivity of 74%.
- Published in 2021 IEEE International Conference on Digital Health.

AWARDS

BEST PROJECT | DEPRESSION DETECTION USING EEG SENSORS

- Developed a prototype of headphones embedded with EEG sensor to classify brain waves to identify depression disorders.
- Analyse the variation of raw Alpha, Beta and Theta waves over time and detect variations from conventional user patterns.

AI/ML STACK

• Python •MATLAB •Docker •Flask •Keras •Tensorflow •PyTorch •Weka •Tableau •Wandb • Pandas • Numpy • OpenCV • Scipy • Sklearn • NVIDIA Monai and Clara