Muthuvel Palanisamy

EDUCATION

STATE UNIVERSITY OF NEW YORK AT BUFFALO

MS in Computer and Information Science
Expected Dec 2018 | Buffalo, NY
Cum. GPA: 3.62 / 4.00

SONA COLLEGE OF TECHNOLOGY ANNA UNIVERSITY

BE in Electronics and Communication Engineering
May 2015 | Salem, India
Cum. GPA: 8.02 / 10.00
Best Outgoing Student
Research Assistant | SIPRO Research Lab

CONTACT

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PORTFOLIO

LinkedIn: linkedin.com/in/muthuvelp
Github: github.com/muthu2093
LeetCode: leetcode.com/muthu2093

SKILLS

Languages & Databases
C/ C++ • Java • Python • Matlab • R • Scala
SQL • Tableau • MySQL • MongoDB
HTML • CSS • JavaScript
Libraries & Frameworks
OpenCV • Keras • Caffe • MedPy • NLTK
Tensorflow • Numpy • Scipy • Scikit-learn
Pandas • Apache Hadoop • Apache Spark
Apache Kafka • D3.js • plotly • Matplotlib
Cloud Technologies and Computing
AWS • Azure • Google Cloud • CUDA
Operating Systems & IDE
Windows • Linux • Git • Eclipse • Xcode

COURSEWORK

Machine Learning
Deep Learning
Computer Vision and Image Processing
Deep Generative Networks and Deep Reinforcement Learning
Analysis of Algorithms
Data Intensive Computing
Distributed Systems
Introduction to Operating Systems
Software Engineering

EXPERIENCE

COGNIZANT TECHNOLOGY SOLUTIONS

Software Engineer | Oct 2015 – May 2017 | Coimbatore, India

- Developed, hosted, and maintained web applications in Java, and HTML using Agile methodology
- Involved in full scale Software Development Life Cycle (SDLC), from prototyping through successful deployment
- Automated the ticketing framework to enrich user experience and provide instant response to user queries which improved the MTTR in our project
- Played key role in developing a daily reporting system for clients which reduced the time spent on queries by nearly 35%
- Designed 'Horn' application to automatically detect any failure/ issues in local servers hosting web applications

JINDAL STEEL WORKS SALEM

Intern | June 2015 – Aug 2015 | Salem, India

- Automated the functioning of the coolants during the De-Scaling of Blooms using PLC which increased the production speed by 15%

RESEARCH AND PROJECTS

UNET FOR BRAIN TUMOR SEGMENTATION

May 2018 | Buffalo, NY | Python, Tensorflow, Keras, MedPy

Researched and trained a Deep Neural Network based on UNET Architecture for segmentation of Brain Tumors in MRI Scans. Our model with a dice coefficient of 0.85 was submitted to the MICCAI BraTS 2018 Challenge.

ARTICLE CLASSIFICATION PIPELINE USING APACHE SPARK

May 2018 | Buffalo, NY | Python, Apache Spark

Trained and built various Regression models, Random Forests and Bayesian Classifiers using Pyspark for categorizing big data containing articles according to their genre with accuracies as high as 95%

BIG DATA ANALYSIS AND VISUALIZATION ON FACEBOOK SCANDAL

Apr 2018 | Buffalo, NY | Python, R, Hadoop, HTML, CSS, D3.js

Collected Twitter and NYtimes data on the Facebook Scandal which amounted to nearly 20GB; cleaned and performed word count using Map Reduce Algorithm in Hadoop and created the word cloud of the data.

SCENE CLASSIFICATION SYSTEM

Dec 2017 | Buffalo, NY | MATLAB

Built using Bag of Words and Spatial Pyramid Matching Algorithms, the model determines where an image is taken when inputted, with an accuracy of 85%.

OBJECT DETECTION AND TRACKING PIPELINE

Dec 2017 | Buffalo, NY | Python, Tensorflow, OpenCV

Built a Lucas-Kanade tracking model over Tensorflow's Object Detection API; our tracker surpassed the Tensorflow's API in speed by nearly 40% during tests.

OPTICAL CHARACTER RECOGNITION FORT TAMIL SCRIPT

Sona SIPRO | Undergraduate Capstone Project
May 2015 | Salem, India | MATLAB

Worked with Dr.R.S Sabeenian & Dr.M.E Paramasivam in creating an Optical Character Recognition System for printed Tamil Script using Neural Networks.