NISHANTH.G
</Software Engineer>

Portfolio | Linked_In | Medium | HackerRank

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EXPERIENCE

Mad Street Den, Chennai — Software Engineer

June 2019 - Present

- Project - VueModel which is an Automated On-Model Fashion Imagery solution that helps improve engagement and conversions on eCommerce platforms using ML and AI
- Development and Administration of Highly Scalable Systems and Microservices that are built to handle and support 3D Model Generation using Generative Adversarial Networks in real time
- Implemented and Configured auto scaling policies that saved roughly 45 % of infrastructure cost
- Optimize performance and Enhanced data processing speed by tuning complex SQL queries , handling Asynchronous tasks while taking advantage of redis queues , multiprocessing and generators
- Re-engineered data pipelines that communicate to and from Microservices during training and testing phases of the generative model to handle and support large bandwidth of data with the help of creating and managing specific target groups
- Mentored junior developers on the team and document best practices within the organization
- single-handedly built and maintained infrastructure and Backend during initial stages of Project

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Mad Street Den, Chennai — Software Engineering intern

December 2018 - June 2019

- Project - Vue.X,single A.I. platform that provides eCommerce teams with everything they need to build, test, and scale personalized shopper journeys
- Building a Django application stores and processes data such as extraction of catalog data, analyze it with user behavior such as most recently viewed items and frequently visited pages/products
- Running and managing the Django servers for different environments(development and production) in AWS Ec2
- Migration of local Database to AWS RDS
- Dockerizing the Django Project

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Mavens-I, Chennai — ML intern

June 2018 - August 2018

- Experiment with cluster of cpu's and extraction of data cpu temperature,memory used, number of requests and Predict if an instance is going to be hacked using Decision Trees and Random Forests with Nominal Encoding

EDUCATION

PSG College of Technology, Coimbatore — B-Tech IT (2015 - 2019)

- Graduated with **First Class Honors** and a **GPA** of **8.65/10**

Skills

Language : Python, c++

Technology: Unix,Cloud AWS,GIT,RDS,UWSGI,nginx, Pandas,NumPy,scikit-learn, Docker

Frameworks: Django,PyTorch,TF,Keras

DB: PostgreSQL,Redshift, DynamoDB

Additional Courses

NPTEL Machine learning course from IIT (6 - months): Elite Certificate in Machine learning

Basics of AI(1 semester):

9/10 GPA

Advanced Linear Algebra(1 semester):

8/10 GPA

Strengths

Creative

Dedicated

Detail Oriented

Effective communication

Language

English, Telugu, Tamil

PROJECTS

Automated Segmentation of Breast Lesions using Deep Neural Network

- Semantic Segmentation of Mammographic Images to Identify Abnormal Lesions using CNN.
- we try to segment and to classify breast lesions from mammography images. To achieve segmentation and mask generation of breast lesions, we use the U-Net architecture . U-Nets train faster and require a lower number of training labeled images, since annotations are difficult. Convolutional networks are employed to classify the lesion from the U-Net output as either Benign or Malignant. Conv-nets are not only improving for whole-image classification, but also making progress on local tasks with structured output. These include advances in bounding box detection, part and key-point prediction and local correspondence.

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Extracting text from images with Tesseract OCR, OpenCV, and CNN

- A table detection, cell recognition and text extraction algorithm to convert tables in images to excel files
- The algorithm consists of three parts: the first is the table detection and cell recognition with Open CV, the second the thorough allocation of the cells to the proper row and column and the third part is the extraction of each allocated cell through Optical Character Recognition (OCR) with pytesseract along with passing data which could not be identified by OCR through a conventional CNN

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Visual Speech Recognition

- Visual speech Recognition aims at transcribing lip movements into readable text. The system will convert an input video into transcripted text
- The technique uses viseme and phoneme matching, where visemes are particular lip moments and phonemes are corresponding sounds that can be converted into text. In recent years, there have been many advances in automatic speech reading system with the inclusion of audio and visual speech features to recognize words even under noisy conditions. Our model focuses mainly on the visual element, while a good system uses the visual segment as a support for the acoustic segment.

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Modern Face Recognition with DeepLearning

- Face Recognition using Histogram of Oriented Gradients(HOG)
- Face recognition is done using HOG technique with an inclusion of a real time subject to evaluate the performance of the algorithm. The feature vectors generated by HOG descriptor are used to train Support Vector Machines (SVM) and results are verified against a given test input. The proposed method checks whether a test image in different pose and lighting conditions is matched correctly with trained images of the facial database. The results of the proposed approach will detect the faces in an image and recognise and say who they are.

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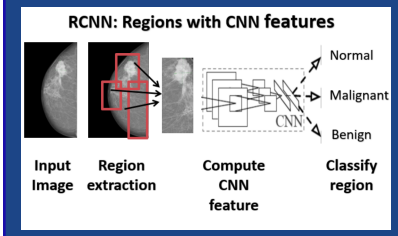
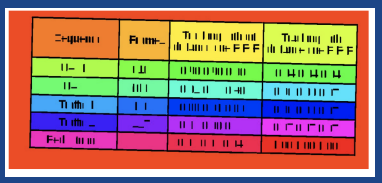
Portfolio and List of all remaining Projects — Detail: View All Projects

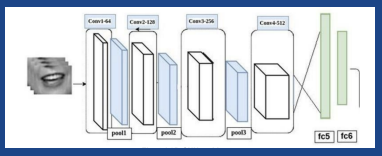
Project 1



Project 2



Project 3



Project 4