Manohar Palanisamy

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WORK EXPERIENCES

Senior Associate - Machine learning **Current – Dec 2018**

Tata Consultancy Services - Contractor *Bangalore*

- Collaborate with data scientists to seamlessly integrate these models into existing systems and applications.
- Maintain the optimization of code for peak performance, ensuring the reliability of machine learning applications.
- Responsible for developing scalable and efficient software solutions, deploying machine learning models in production.
- Stay informed about best practices in software development and meticulously implement them within ML workflows as part of my roles and responsibilities.

Executive Software Developer **Jan 2017 – Dec 2018**

QuantumLink Communications Pvt Ltd *Mumbai*

- Developed a research-based web application called FieldSense. This project involved creating a Salesforce tracking system to monitor salesperson activities.
- Responsible for handling feature enhancement and *bug* fixing related to our products which also included understanding the requirements and preparing design documents and Impact Analysis.
- Worked on an email system with full knowledge of network and email protocols, ensuring timely delivery and quality, all in line with the client's quality standards.
- Collaborated with team members using version control systems such as Git to organize modifications and assign tasks.

TECHNICAL SKILLS

ML Model And Algorithms: Linear Regression, Logistic Regression, SVM, KNN, Naive Bayes, Decision Tree, Gradient Descent, SGD, minibatch GD, Adam etc.

Artificial Neural Networks: Perceptron, MLP, CNN, RNN, LSTM, GRU, BRNN, Autoencoders, GAN, Residual Net

Coding Skills: Scripting and web development including Python (NumPy, scikit-learn) , Java, C, JSP, Servlets, Spring Framework, HTML5, CSS3, JavaScript, Ajax, jQuery, Bootstrap3, REST API, HTTP Server, Mail protocols and DNS server

Deep Learning Frameworks: TensorFlow, Keras, PyTorch

Data Manipulation: Pandas, NumPy

Data Visualization: Matplotlib, Seaborn

Natural Language Processing: NLTK (Natural Language Toolkit), spaCy

Model Evaluation: Cross-validation, ROC curve analysis, Confusion matrix, Grid search, Hyperparameter tuning

Deployment: Docker, Kubernetes, Vercel, CloudflareCDN

Cloud Platforms: AWS (Amazon SageMaker, EC2, S3)

Big Data Technologies: Apache Spark, Hadoop, MapReduce, Pig, Hive

Software Development: Agile methodology, Continuous Integration/Continuous Deployment (CI/CD), GitHub Actions

Database Management: MySQL, MongoDB

Version Control: Git

CERTIFICATIONS

Generative AI with Large Language Models [MAVEJZ9P9AV5] **Sep 2021 – Feb 2022**

DeepLearning.AI, Amazon Web Services *Coursera.org*

Deep Learning Specialization [WFUWAE7JQ924] **Sep 2021 – Feb 2022**

DeepLearning.AI *Coursera.org*

Applied AI with DeepLearning [DRENBUK43NW8] **Sep 2021 – Feb 2022**

IBM *Coursera.org*

Machine Learning [WFUWAE7JQ924] **Sep 2021 – Feb 2022**

Stanford University *Coursera.org*

PROJECTS

Image Classifier | *Python, FastAI , Render* **Live**

- Developed an advanced image classifier using the ResNet50 neural network architecture from the Fastai deep learning library.
- Trained the model to classify images of Marvel Heroes into 12 distinct classes.
- Leveraged the powerful capabilities of Fastai for efficient training and model evaluation.
- Hosted the final trained model on Render, making it accessible via the web at https://project.decodeai.in

Automate to Extraction of Screen Shots from Photos | *Python, NumPy, Keras* **July 2018**

- Trained a Convolutional Neural Network (CNN) model to automate the extraction of screen shot files from photo albums.
- Developed a Python script (extract.py) to execute the extraction process.
- Used Keras' data augmentation pipeline to train the model, which was trained on approximately 1200 images.

Distributed Deep Learning with Horovod and MPI | *Python, Horovod, MPI* **May 2018**

- This project focuses on speeding up deep learning training by distributing the workload across multiple computers.
- It uses Horovod, a tool for distributed training, and MPI, a communication protocol. By doing this, we can train models faster and use computing resources more efficiently.
- Through this project, I learned how to use advanced tools to make deep learning training faster and more scalable.

PERSONAL BLOG

www.decodeai.in | *JAM Stack, Jekyll, Cloudflare, Vercel, GitHub, ImageKit.io, Umami Analytics, Giscus.app* **Live**

- Regularly publish articles on machine learning, deep learning, and other technology-related topics.
- Cover a wide range of subjects, including tutorials, guides, and insights into the latest developments in the field.
- Provide valuable resources and insights to fellow tech enthusiasts and learners.
- Engage with readers through comments, discussions, and feedback.

PUBLICATION

Fake Account Eliminator **March 2015**

National Conference on Engineering Applications for Developing Smart Cities - NCEADS

- This software is designed to find and remove fake accounts on platforms like Facebook, Gmail, and Twitter in India.
- It uses the UIDAI (Unique Identification Authority of India) as a key part of its operation.
- India has many fake users on social media and email, so this tool helps to identify and eliminate them. It enforces a rule where each person can only have one account, reducing problems for real users and the public.

EDUCATION

Bachelor of Engineering in Computer Science **Sep 2012 – May 2016**

Dhirajlal Gandhi College of Technology, Anna University *Salem, Tamilnadu*