Amith Reddy Maada

Possessing more than 3 years of hands-on experience, highly skilled and motivated professional with a strong background in AWS, Python, ML and DevOps. Successfully developed and deployed Machine Learning models to solve the business use-cases. Implementing and maintaining DevOps practices to streamline software development.

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Work Experience

Software Engineer| Experian, Hyderabad

Oct-2024 to Present

Product development for North America's FSD business unit, which generates credit reports by collecting and analyzing credit histories. Worked with various ML algorithms and AWS services, often required to communicate & collaborate with clients to develop and deploy the models.

- Proficient in using Polars, Numpy, Pandas to perform Data Analysis.
- Collaborated with clients for developing ML models.
- Rewrite/Migrate existing Mainframe C models to AWS Python.
- Experienced in automating, configuring and deploying instances on AWS cloud, also familiar with EC2, S3, ELB, Cloud watch, SNS, SQS, Elastic IP's, Lambda, Event Bridge, IAM and managing security groups on AWS.
- Experienced with Integrating Machine Learning algorithms such as Logistic Regression, Linear Regression , Random Forest, XG Boost, LightGBM.
- Utilized CoPilot and advanced prompt engineering techniques to automate and enhance development processes, improve code quality, and streamline testing efforts.
- Among the early contributors to the project, focused on streamlining model development and deployment to AWS. Spearheaded engineering excellence initiatives to enhance development efficiency and team performance.

Software Engineer| Caspex-Experian, Hyderabad

November-2022 to Oct-2024

Product development for North America's "Consumer Information Services" business unit, which generates credit reports by collecting and analyzing credit histories. Worked with various ML algorithms and AWS services, often required to communicate & collaborate with clients to develop and deploy the models.

- Proficient in using Numpy, Pandas to perform Data Analysis.
- Collaborated with clients for developing ML models.
- Automated the conversion of C/C++ models to Python ML specific leveraging NumPy and Pandas libraries.

Skills

- **Python**:
  - NumPy
  - Pandas
  - Polars
  - Matplotlib
  - TensorFlow
  - Keras
  - Django
  - Flask
  - PySpark
- Machine Learning
- Deep Learning
- Excel
- SQL
- Golang
- Java
- C/C++
- React.js
- **DevOps:**
  - GIT
  - Jenkins
  - Docker
  - Kubernetes
  - JFrog
  - Ansible
  - Terraform
  - AWS
  - Veracode
- GitHub CoPilot
- **OS:**
  - Linux
  - Windows

- Experienced in automating, configuring and deploying instances on AWS cloud, also familiar with EC2, S3, ELB, Cloud watch, SNS, SQS, Elastic IP's, Lambda, Event Bridge, IAM and managing security groups on AWS.
- Provisioned Infrastructure using Terraform scripts and automated the build and deployment using Jenkins.
- Developed User Interfaces in React.js, Flask, Django.
- Experienced with Machine Learning algorithms such as Logistic Regression, Linear Regression , Random Forest, XG Boost, LightGBM, K-means and Neural networks.

Languages

- English
- Telugu
- Hindi

Software Engineer Trainee| Caspex-Experian, Hyderabad

November-2021 to October-2022

Worked on Product Automation and Integration using DevOps tools & technologies such as Python, Golang, Shell scripts, Jenkins CI/CD. Examine software needs and put scalable solutions in place.

- Certificate of appreciation under the '**Innovate to Grow**' category for my outstanding contribution as a **DevOps** team member.
- Automated complex manual tasks with Python, Golang, shell scripts, and Jenkins CI/CD pipelines.
- Installed and Configured Continuous Integration tool Jenkins for automated builds.
- Experienced with containerization and orchestration technologies such as Docker and Kubernetes.
- Worked with Ansible to automate the process of deploying the new builds in each environment, setting up a new node and configuring machines/servers.
- Proficient in using Git for version control and collaboration.

Research Papers

Real-Time Video Processing for Ship Detection using Transfer Learning

- It proposes an algorithm different from normal convolution neural networks where the model was trained using Transfer Learning technique by utilizing (Single Shot Detector) SSD MobileNetV2 and the best thing about this project is it gives the coordinates of the ship in the Maritime Satellite Imagery.
- Published a paper at the “3rd International Conference on Image Processing and Capsule Networks” of the Springer - Lecture Notes in Networks and Systems.

Deep Learning Hybrid for X-ray Lung disease detection

- In this paper, a well-designed and fine-tuned model was presented based on Convolutional Neural Networks that analyzes chest x-ray images of humans to assess the existence of the lung diseases. Data Augmentation technique was used to increase the size and variability of the training data. With the aid of dropout and early stopping the model was prevented from over-fitting. The convergence of model was significantly improved with the help of fine-tuned learning and decay rate of Adam Optimizer.
- Presented at “Second International Conference on Advanced Technologies in Intelligent Control, Environment, Computing and Communication Engineering” of the IEEE publication.

Education

Bachelor of Technology| Kakatiya Institute of Technology and Science

July 2018 to June 2022

Projects:

- Convolutional Neural Networks for Plant Leaf Disease Detection: Plant disease is a continuing challenge for smallholder farmers, which has an impact on income and food production. Identifying the disease at starting stage and preventing it from spreading to other parts of the plant is a challenge even for the experts in the field. Convolutional Neural Networks (CNN) are considered as state of the art in classification of images and have the ability to produce a conclusive diagnosis. In this project, a Transfer Learning approach is used, in which a fine-tuned pre trained model is used to train on pictures of different fruit plant leaves from the Plant Village dataset, covering various diseases as well as safe samples.

- Automation of Timetable Management System: In this project, a web application is developed to automate the creation of timetable given the input data such as faculty, courses, faculty-course mapping, faculty priorities, department details.. and some others. The above mentioned details are stored in database by adhering to 3NF. Genetic Algorithms are used for generating the timetable by minimizing the clashes and errors.

Seminar:

- Customer Segmentation using Clustering: In this seminar, I presented the use of K-Means clustering algorithm for performing Customer segmentation, which is an activity of dividing the customers into sub-groups having similar kind of characteristics. This Customer Segmentation helps different clusters to have their unique marketing programs such as prices, promotions, different offers, or some combination of marketing variables.

Certifications

- Infosys Certified Software Programmer at Infosys
- Neural Networks and Deep Learning at DeepLearning.ai, Coursera
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization at DeepLearning.ai, Coursera
- Structuring Machine Learning Projects at DeepLearning.ai, Coursera
- Convolutional Neural Networks at DeepLearning.ai, Coursera
- Python3 Programming at University of Michigan, Coursera
- CCNA: Introduction to Networks at Cisco Networking Academy
- Database Design and Programming with SQL at Oracle Academy
- Excel Skills for Business: Essentials at Macquarie University, Coursera
- Java Fundamentals at Oracle Academy