Ganesh S

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Technical Skills

Programming Languages: Python (Pandas, Numpy, scikit-learn, Matplotlib, TensorFlow, Keras, OpenCV* etc.)

Deep Learning Frameworks: TensorFlow, PyTorch, Keras

Cloud Platform AWS (S3, Lambda, EC2 Instance, Elastic Beanstalk)

Libraries & Tools: NumPy, Pandas, Scikit-learn, OpenCV, PyTorch, Git, Docker

Machine Learning Regression, Classification, Random Forests, Clustering

Experience

Software Engineer Oct 2024 – Present
Nextpower *Hyderbad, India*

- Developed computer-vision–based models to predict critical solar-tracker features and generate TrueCapture® parameters, improving sun-tracking accuracy and maximizing high-energy yield.
- Built scalable drone-image-based CV pipelines for post-disaster solar panel inspection, reducing manual inspection effort by 90% and accelerating insurance reporting timelines.
- Engineered a deployment automation tool that reduced field deployment team turnaround time (TAT) from 2 days to under 20 minutes, improving scalability and operational efficiency.
- Currently developing computer vision–based shadow detection and analysis using drone video across solar trackers to identify inter-tracker shading patterns and quantify their impact on energy generation.

Software Engineer Feb 2018 – Nov 2024
Sensehawk *Bengaluru, Inida*

- Developed an end-to-end ML training pipeline, leveraging MLflow to track experiments, log metrics and parameters, and store model artifacts in S3. This pipeline facilitates the detection and classification of solar plant construction components, enabling the monitoring of solar construction projects.
- Developed a plugin for the GIS team with functionality-rich features (therm, terra) to reduce TAT
- Deprecated a Server (SIDV2) and optimized it for a 10X faster approval turnaround speed.
- Developed a Google Chat bot notification system and integrated with managed servers to provide real-time notifications to end users on approval status

Projects

Event Management Site Jan 2023 – March 2023
Django, HTML *Python, Django, MangoDB*

- Built a Django-based event management web app for browsing and purchasing balloon decoration themes.
- Enabled real-time customer inquiries through WhatsApp integration for decoration requests.
- Implemented backend and UI logic to manage themes, orders, and customer interactions.

Object detection and Classification Jan 2025 – April 2025
Deep learning *Python, PyTorch*

- Implemented object detection using Faster R-CNN (ResNet50, MobileNetV3 backbones) and RetinaNet (ResNet50) in PyTorch, balancing accuracy and inference speed.
- Fine-tuned image classification models using VGG16, VGG19, Inception, DenseNet, and ResNet architectures with transfer learning.
- Built unified training and evaluation pipelines to benchmark detection and classification models with consistent metrics and reproducibility.

Certification

DeepLearning.AI TensorFlow Developer — Deeplearning.ai certificate