SUNNY BHAVEEN CHANDRA

Sr. Data Scientist

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👤 Profile

I have 3+ years of work experience in Data Science with a proven ability and history of developing full-stack computer vision and Natural language processing pipelines. Hands-on experience leveraging machine learning, deep learning, and transfer learning models to solve challenging business problems.

🧠 Skills

Python - *(Scripting | Automation)* | **Deep Learning -** *(Artificial Neural Network)*

Computer Vision - *(Convolutional Neural Network | Image processing | Object Classification | Object Detection | Object Segmentation)*

Natural Language Processing - *(Transformers, Bert, GPT)* | **Git** | **GitHub**

MLOps - *(DVC | MLflow | Kubeflow | Sagemaker | Docker | GitHub Actions)* | **Linux** *(Ubuntu | Debian)*

Databases *(MySQL | MongoDB)* | **APIs** *(FastAPI | Flask)* | **Cloud** *(AWS)*

💼 Professional Experience

Sr. Data Scientist, *iNeuron Intelligence* ⧉   07/2020 – present | Bengaluru, India
Job responsibilities:-
- Lead a team of **15+ Data scientists, Jr. Data scientists** in various Data Science Projects.
- Introduced and implemented **MLOPs** methodology for the first time in the organization using **MLFlow**.
- AI consultancy for other organizations and professionals on behalf of iNeuron Intelligence pvt. Ltd.
- Served as **head of the Research & Development lab** where core research centered on **drone-based AI solutions**.
- Managed projects for **healthcare, and computer vision** with deployment on **cloud and edge/Embedded devices**.
- Delivered expert lectures to data science and other industry professionals on **AIOPs/MLOps**, **Deep Learning**, **Computer Vision**, and **Natural Language Processing**.

Sr. Consultant, *Simplilearn* ⧉   01/2019 – 10/2019 | Bengaluru, India
Job responsibilities:-
- Trained working professionals and interns in **Natural Language Processing** and **Computer Vision**.
- Delivered **corporate training** in Data Science for various companies like **Dell USA, Brillio, HP, & Accenture.**

📁 Projects

REVERSE SEARCH ENGINE, IMAGE EMBEDDING, *iNeuron.ai*   05/2022 – present
Tech: Python, **Resnet18**, **Pytorch**, EC2, ECR, S3, **GitHub Actions** MongoDB, **Docker, PaperSpace.**
- Designed a **decoupled microservice architecture** for an embeddings-based image search engine which includes CI/CD for Data Collection, model training pipeline, and model prediction.
- Used **S3 bucket** as a **Data Store** and granted public access to images for listing after a prediction from the model endpoint.
- Selected **ResNet18** as embeddings generator and **ANNOY** algorithm for finding nearest neighbors in **logn** time complexity.
- Utilized **GitHub actions** for implementation of host-controlled **continuous GPU Based Training** on paper space remote machine and used S3 bucket as Model Registry.
- Created **Lambda Triggers** as model Reloaders in a **Production environment** for model prediction endpoints.

INTELLIGENT RADIOLOGIST ASSISTANT (IRA), *iNeuron.ai*   12/2021 – present
Tech: Python, **Tensorflow**, EC2, ECR, S3, GitHub Actions, Docker, PaperSpace.
- Developed an **automatic medical imaging diagnostic procedure and reporting app** to assist radiologists using **deep computer vision techniques**.
- The trial was done publically available data at http://medicaldecathlon.com/ for **Brain Tumour Segmentation MRI data**.
- Analyzed **750 4D volumes (Volumetric data)** and trained various segmentation models.
- Designed a **continuous training pipeline** using **GitHub actions** on **paperspace** remote machines and utilized an **S3 bucket** as a **model registry**.
- Deployed dockerized application on GPU instance using GitHub actions for faster inferencing.

DEEP AUTHENTICATOR, IMAGE EMBEDDING (PoC), *iNeuron.ai* 01/2022 – 03/2022

Tech: Python, NodeMCU, **MongoDb**, **DeepFace**, **FastAPI**, Docker, ACR, App Services, Terraform, Azure.

- Designed an embeddings-based remote application for a client to provide permission-based access to restricted areas.
- Selected **MTCNN** for face detection and **FaceNet** for Embedding generation utilized MongoDB as a **feature store.**
- Used FastAPI as an interface for the model and checked similarly using loss.
- Implemented CI/CD in monolith architecture using GitHub actions and deployed the web application on App services on Azure cloud.

**SURVEILLANCE PROJECT | CORE OCR MODULE (PoC),** *iNeuron.ai* 04/2020 – 07/2020

Tech: Python, **OpenCV, Otsu's method**

- The core OCR module is one of the modules of the Surveillance project.
- This was meant for measuring the progress of an employee by capturing the screenshot of the screen and extracting data out of it for comparing and calculating the progress from the previous screenshot.
- This project aims at increasing the overall productivity of an employee.

🌐 Community Lectures

HOW TO CREATE WELL-TESTED PYTHON PACKAGES,

PYPI package - IPYNBrenderer ⬈

A playlist on how to create and publish well-tested python packages over PyPI.org

MLOPS COMMUNITY EVENT ⬈ 04/2021

Volunteered live community session on MLOps.

15 HOUR SESSION IN IMPLEMENTING END TO END DATA SCIENCE PROJECTS | COMMUNITY EVENT ⬈ 02/2021

A community event to guide people who are very new to AI or Data Science.

🎓 Education

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY, 2016 – 2018 | Jaipur, Rajasthan

Master of Technology ⬈

Embedded Systems

MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY, 2009 – 2013 | Gorakhpur, Uttar Pradesh

Bachelor of Technology ⬈

Electronics and Communication Engineering