SUNNY BHAVEEN CHANDRA

Sr. Data Scientist

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https://www.linkedin.com/in/c17hawke/ | https://github.com/c17hawke | https://www.youtube.com/c17hawke

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.

PIPELINE STANDARDIZATION, *iNeuron.ai* 06/2022 – present

- We implemented a **machine learning** project code and deployment structure for all the upcoming projects.
- Implemented Google's **MLOps level 2 architecture** on Aws, Azure, and GCP.
- Introduced **Mlflow and weight & biases Experiment Tracker** for Experiment comparison and parameters tracking.
- Drafted **Mlops** Templates for clients and iNeuron internals.

Personal Projects

IPYNBrenderer, *Python package* 09/2022 – 09/2022 | Bengaluru, India

- This package is meant to render Websites, Docs, and Videos in **Jupyter Notebooks** for easy reference.
- Developed its documentation at *-https://c17hawke.github.io/IPYNBrenderer/* using the **mkdocs-material** library.
- This package is an **OS-independen**t package as well as tested for multiple versions of python

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