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EXPERIENCE

Unify.ai

May 2024 - Present

OPEN SOURCE MACHINE LEARNING CONTRIBUTOR - VOLUNTEER PROGRAM

- Contributing to the development and maintenance of open-source machine learning projects.
- Tools & Technologies: Python, TensorFlow, PyTorch, Git.

mediMESH - Clinical Insights, Magdeburg, Germany

March 2023 - Present

WORK STUDENT - ARTIFICIAL INTELLIGENCE ENGINEER

- Spearheaded AI innovations in clinical data privacy, developing a cutting-edge anonymization pipeline that reduced processing time from 3 days to less than 7 minutes (**99.84% improvement**).
- Implemented custom face detection modules and streamlined annotation, enhancing accuracy and compliance.
- Managed system administration and data workflows for seamless operation and integration.
- Tools & Technologies: Detectron2, YOLO, SAM, Docker, OpenCV, CVAT, Python, PyTorch.

CemtrexLabs, Pune, India

July 2020 - August 2020

DATA SCIENCE INTERN

- Generated and cleaned the dataset from **open source images** required for the video analytics project.
- Improved dataset transfer time by **99 percentage** significantly by creating efficient Python APIs.
- Tools & Technologies: Python, Image Processing, Remo tool, COCO dataset, Open-Images.

Knowledge Solution India, Pune, India

May 2020 - June 2020

DATA SCIENCE TRAINEE & INTERN

- Analyzed and visualized COVID-19 data to recognize patterns and predict potential cases using ML algorithms.
- Tools & Technologies: Python, R, Pandas, Numpy, Matplotlib, Seaborn, Scikit-Learn.

Athens Information Technology, Greece

June 2019 - July 2019

UNDERGRADUATE FELLOWSHIP SUMMER PROJECT AND RESEARCH PROGRAM

- Implemented a Blockchain PoC for IoT-based transportation of sensitive goods.
- Tools & Technologies: Ethereum Blockchain, Solidity, Go, Javascript, HTML, CSS, MetaMask.

EDUCATION

Otto Von Guericke University, Magdeburg, Germany

April 2022 - October 2024 (Expected)

MASTER OF SCIENCES - DATA AND KNOWLEDGE ENGINEERING

- Grade: 1.9
- **Key subjects:** Machine Learning, Deep Learning, Data Mining, Cloud DevOps, Visual Analytics, Recommenders.

Dr. D. Y. Patil Institute Of Engineering Management And Research, Pune, India

July 2017 - July 2021

BACHELOR OF ENGINEERING - COMPUTER ENGINEERING

- Grade: 1.4
- **Key subjects:** Data Structures, DBMS, Data Analytics, Machine Learning, AI.

PROJECTS

Multi-Perspective Video Analysis System - Master Thesis

February 2024 - Present

- Created custom YOLO object detection models and designed a report generation module for insights.
- Built a multi camera object tracking prototype for healthcare environment.
- Tools & Technologies: Object Tracking, Deep Learning, Machine Learning, Image Processing, Computer Vision, Python, PyTorch, TensorFlow, YOLO.

Validating Attribution Techniques (Group Project - OVGU)

May 2023 - September 2023

- Implemented and assessed **attribution methods** on various models, identifying vulnerabilities.
- Developed and integrated evaluation metrics such as **Pearson Correlation Coefficient**, **Earth Mover's Distance**, and **Normalized Scanpath Saliency**.
- Tools & Technologies: Deep Learning, Image Processing, Computer Vision, Python, PyTorch, TensorFlow, Captum.

System for Waste Management: Smartzzy - Bachelor Thesis

October 2020 - June 2021

- Led a team to build a waste segregation system using Deep Learning, integrating with Raspberry Pi.
- Tools & Technologies: Machine Learning, IoT, Google Cloud, Flask, TensorFlow, Keras, Computer Vision.

Farmers' Mart

August 2020

- Developed an **F2C (Farm Direct Marketing)** platform with a recommendation system and future price prediction for crops.
- Tools & Technologies: Data Science, Machine Learning, Deep Learning, Blockchain, Flask, IoT.

SKILLS

PROGRAMMING LANGUAGES	Experienced: Python C++ Intermediate: Java Solidity SQL R Shell Scripting Go HTML/CSS JavaScript
DATA SCIENCE	Machine Learning Deep Learning Computer Vision NLP Recommender Systems
SOFTWARE DEVELOPMENT	GIT Agile Methodology DevOps Lifecycles Docker Airflow
FRAMEWORKS & LIBRARIES	Flask Streamlit TensorFlow Keras PyTorch Scikit-learn OpenCV Captum MLflow Matplotlib Plotly Numpy Pandas Tensorboard JupyterHub
DATABASES	Oracle MySQL MongoDB
OPERATING SYSTEMS	Windows Linux macOS Raspbian
MICROSOFT	Excel Outlook PowerShell
LANGUAGES	Native: Hindi Marathi Telugu Fluent: English (C1) Intermediate: German (A2)

CERTIFICATIONS

- **Microsoft:** Microsoft Technical Associate for Introduction to Programming Using Python (August 2020).
- **Coursera:** Programming for Everybody (Getting Started with Python) by the University of Michigan (May 2020).
- **Coursera:** Python Data Structures by the University of Michigan (May 2020).
- **Coursera:** Using Python to Access Web Data by the University of Michigan (June 2020).

PATENTS

- **Smartzzy**, Application number: 202121011507, Region: India, Status: Published (September 2022).
- **Name: Smart Parkade**, Application number: 202121011511, Region: India, Status: Published (September 2022).

ACHIEVEMENTS & CO-CURRICULAR ACTIVITIES

- Runner up in **Smart India Hackathon** conducted in DYPIEMR (February 2020).
- **Smart India Hackathon** - 2020 finalists - Top 5 projects from India (August 2020).
- Runner up of **Mini Project Exhibition** conducted in DYPIEMR in association with ACM (October 2019).
- Finalist in the Hackathon "**Solve for Safer India**" organized by Indian Road Safety Campaign, Ministry of Road Transport & Highway, United Nations of Training & Research, IIT Guwahati, & Robert Bosch Engineering (April 2019).

HOBBIES

- Strength Training, Cricket, Table Tennis, Volleyball, Bike Riding, Playing Mobile Games