Uravane Prathamesh Suhas

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Education:

Qualification	Institute	University/Board	Year of Passing	Percentage/Grade
Bachelor of Technology in Artificial Intelligence and Data Science	Department of Science and Technology	Vishwakarma University, Pune.	2024	8.78/10
Higher Secondary School Certificate (Class XII)	VSMP Jr college, Jadhav-wadi	Maharashtra State Board of Secondary & Higher Secondary Education	2020	71.85
Secondary School Certificate (Class X)	Sadashivrao Mane Vidyalaya,Akluj.	Maharashtra State Board of Secondary & Higher Secondary Education	2018	97.20%

Skills & Abilities:

- Python/MySQL/HTML/PHP/C/C++
- Deep Learning
- Neural Networks
- Model Deployment
- Image processing
- Machine Learning
- Computer Vision
- Web Development
- Generative AI
- Medical imaging
- Data science
- Big Data analytics
- Hyperparameter Tunning
- Data visualization/ Power BI
- NLP

Experience:

Sr. no	Employer	Designation	Description	Duration
1	Universidad Maria Auxiliadora, Lima, Peru	AI Engineer	Currently developing AI-Driven Virtual Lab simulations to enhance interactive learning	Jul 2024 - Present
2	Universidad Maria Auxiliadora, Lima, Peru	AI Engineer Intern	Built student attentiveness monitoring system along with student dropout prediction system for an University.	Mar 2024 – Jul 2024
3	Energy Research institute @ NTU, Singapore	Student Researcher	Conducted research on using GANs to create realistic road scenarios for enhancing the robustness of perception system of autonomous vehicles	Jan 2024 – Mar 2024

4	Yodda Elder Care Technologies Pvt Limited, Pune, India	Computer Vision Project Intern	Developed Computer Vision based Fall detection system with rapid alarms and snapshot functionalities	Jul 2023 – Dec 2023
5	VU Research Center of Excellence for Health Informatics, Pune, India	Student Researcher	Built computationally efficient CNN model for the classifying brain tumor MRI images	Jun 2022 – Aug 2022

Publications:

- ***Research Paper:*** ***"An Efficient Deep Learning based Approach for the Detection of Brain Tumors".***
  Conference : 5th IEEE International Conference on Contemporary Computing and Informatics (IC3I-2022) ***(published)***

- ***Research Paper:*** ***"Fall Detection Methods for Elderly People- A Comprehensive Survey".***
  Conference : 5th IEEE International Conference on Contemporary Computing and Informatics (IC3I-2023) ***(published)***

- **Chapter: "Role of the Big Data in Healthcare System, IET".**
  Book: IET Book 'Medical Imaging Informatics: Machine learning, deep learning and big data analytics' Elsevier, SCOPUS Kings Way, Stevenage, SG1 2UA, United Kingdom ***(published)***

- ***Research Paper:*** **Advanced Preprocessing Pipeline for Breast Cancer Segmentation.** ***(under process)***

- **Dataset: Image Dataset for Final year project (Elder safe vision)** **(under process)**

Projects:

S.No & Date	Title & Description & Technologies
1. July 24 - Present *(Remotely at India)*	**Virtual Lab Simulator Integrated with AI** Developing a virtual lab simulator, which will help students to perform various experiment simulations Virtually. Personalized feedback system is also under implementation to give useful insights by analyzing student responses. This system will enhance the practical learning experience through real-time feedback and interactive simulations. ***Technologies:*** *Python / Flask / Gradio / Sentence Transformer(NLP)/ PHP / MySQL/ HTML /CSS*
2. May 24 - July 24 *(UMA,Lima, Peru)*	**Student Attentiveness Monitoring System** Built a student's attentiveness Monitoring system online classes using computer vision technology. It includes face recognition and landmark analysis. Implemented video analysis to track eye movements to monitor the attentiveness of the student. Also designed an user friendly interface for faculty member to get insights. **Technologies**: *Python / dlib / face_recognition / OpenCV / multi-threading / Tkinter / concurrent processing / facial recognition / landmark detection / video processing*
3. March 24 - May 24	**Student Dropout Prediction System** Implemented a student dropout prediction system using ensemble learning method. Meta model is used as final prediction model to tackle the class imbalance issue . Created user friendly interface for faculties to use this system which includes database connection for fetching and storing student's data. It enables early identification of at-risk students, enabling University to take timely actions and improve retention rates.

(UMA,Lima, Peru)	**Technologies**: *Python / FastAPI / Gradio / Machine Learning / MySQL / Data Preprocessing / Feature Engineering / Joblib / Pandas / Scikit-Learn*
4. March 24 - May 24 *(VU ,India)*	**Advanced Preprocessing Pipeline for Breast Cancer Segmentation.** For the segmentation of breast cancer CT scan images using multiple segmentation models, an advanced preprocessing pipeline implemented. Used dataset has taken from open-source platform Kaggle. The preprocessing pipeline improves images using various pre-processing techniques which consequently allows model to perform well. The models are trained to segment cancerous regions, using techniques such as Dice coefficient and IoU for evaluation. This method enables accurate identification of cancerous areas in CT scan image, supporting early diagnosis and treatment planning. **Technologies**: *Python / TensorFlow / Keras / OpenCV / U-Net / ResNet / VGG16 / Image Preprocessing / Data Augmentation / CLAHE / Gaussian Blurring / TensorFlow Dataset API / Medical Image Segmentation*
5. Feb 24 - March 24 *(VU ,India)*	**Early Dyslexia Detection System Using Gamified test data and ANN Modeling** created an early dyslexia diagnosis system using gamified test data, applying data preprocessing and SMOTE to address class imbalance. Instead of using traditional machinelearning process I used an artificial neural network (ANN) model which resulted in achieving high accuracy in predictions. built system provides early detection of and enables timely treatment. **Technologies**: *Python / SMOTE / Artificial Neural Network (ANN) / Data Preprocessing / Gamified Assessments / Pandas / Scikit-Learn / NumPy*
6. Jan 24 - April 24 *(VU ,India)*	**Multi-Model Classification System for Dyslexia Detection Using Handwritten Digit Data** Built a dyslexia detection system using handwritten digit data with Multi-model approach, with multiple custom trained models. This approach helped to boost accuracy, and the system evaluates performance using methods like accuracy and confusion matrices. Results are saved for further analysis, enabling robust and reliable detection. This approach supports early diagnosis, leading to timely actions for the betterment of affected people. **Technologies**: *Python / TensorFlow / Keras / Machine Learning / Ensemble Learning / Data Preprocessing / Pickle*
7. Jan 24 - March 24 *(ERI@N,NTU, Singapore)*	**GAN-Based Realistic Road Scenario Generation for Enhancing Autonomous Vehicle Perception** Implemented a GAN model to generate realistic road scenarios using the pedestrian dataset, to enhance the robustness of autonomous vehicle's perception systems. Implemented GAN generated diverse traffic environments to expand the training dataset with synthetic yet realistic scenarios. This project improved the accuracy and adaptability of perception system, leading to safer and more reliable vehicle perception in dynamic road situations. **Technologies**: *Python / TensorFlow / Keras / Generative Adversarial Network (GAN) / Image Synthesis / Data Augmentation / Computer Vision / Autonomous Vehicle Perception / Pedestrian Detection / Machine Learning*
8. Jan 23 - Dec 23	**Elder Safe Vision: Real-Time Fall Detection for Elderly People Using Advanced Computer Vision Techniques** Implemented logic for emergency scenario detection using advanced computer vision techniques. Designed and developed novel algorithms for accurate detection without physical sensors, achieving high accuracy even in low-light conditions using pose estimation and classification

(*Yodda company ,India)*	models. Integrated functionalities like alarm triggering and snapshot delivery in milliseconds, enhancing the system's effectiveness during emergencies. **Technologies**: *Python / OpenCV / TensorFlow / Keras / Computer Networks / Deep Learning*
9. Aug 22 - Dec 22 *(VU ,India)*	**University Examination Result Management Portal** A web application implemented for managing student examination results. It includes separate interfaces for students to submit details and teachers to input marks. The system handles data validation, result processing, login authentication, and special cases like student failures. It smoothly synchronizes result management and enhances access to academic information. **Technologies***: HTML / CSS / JavaScript / PHP / MySQL / Form Validation / Web Development / Data Processing / User Authentication*
10. Jun 22 - Aug 22 *(VU ,India)*	**Classification of Brain Tumor MRI Images Using CNN** Developed a Convolutional Neural Network (CNN) model for classifying brain tumors MRI images, achieving 96% accuracy with minimal computational power. The project consisted of image preprocessing steps like resizing and normalization. It aims to improve diagnostic accuracy and support early detection. **Technologies**: Python */ TensorFlow / Keras / Convolutional Neural Network (CNN) / Image Preprocessing / Medical Imaging / Machine Learning / Data Augmentation / Model Evaluation*

Academic Courses:

- Research Integrity Course - Certified, **Nanyang Technological University, Singapore**, 2023
- Healthcare and Data analysis- workshop, **Binghampton University, New York**, 2023
- Lean six sigma for Engineers and Managers - workshop, **Binghampton University, New York**, 2023
- Deep Learning-Certified, **LinkedIn,2022**
- Power BI Essential Training- Certified, **LinkedIn**, 2020
- Business Intelligence for Consultants**,** **LinkedIn**, 2020

Academic Achievements:

- Times of India – featured for developing real time Fall detection system.
- Research paper Presentation**- C3I22 IEE conference** - 2022
- 'Machine Learning Study Jams' host (spoke Person)- **Google Developers Student Club-2023**
- Maharashtra Talent Search Examination (MTSE) - **Special Prize** – 2018
- Maharashtra Olympiad - **District Topper** – 2016
- International Mathematics Olympiad – **Class topper Rank 1** twice in 2014 and 2015
- National Science Olympiad - **Class topper Rank 1** – 2014

Extra-Curricula's:

- **Chess Player** – Silver medal – Vishwakarma University Chess Tournament- 2023
- **Poetry** – 1st position - Aarambha 2021 (University's Cultural Festival) – 2021
- **Fashion** – 2nd position - Aarambha 2021 (University's Cultural Festival) – 2021
- **Oratory** – 20 + Prizes and Youth Parliament Championship - Second level Participation – 2017
- **Drawing** - Drawing Grade exam – B grade - 2017
- **Yoga** – Gold certificate Yogathon- 2014