SAYALI LOKHANDE

◇ (530) 979-3658 ◇ slokhande@ucdavis.edu ◇ LinkedIn ◇ Portfolio

EDUCATION

Master of Science in Computer Science September 2024 - June 2026 (Expected)
University of California, Davis GPA : 3.92/4

- Courses : Machine Learning, Distributed Database Systems, Software Engineering, Data & Web Technologies

Bachelor of Technology in Electrical Engineering November 2020 - April 2024
Indian Institute of Technology(IIT), Dharwad CGPA : 8.64/10

- Courses : Data Structures & Algorithms, Computer Programming, Optimization Theory, Data Analysis, Probability

EXPERIENCE

Machine Learning Research Intern August 2023 - April 2024
Durham University, England Durham, England

- Implemented diffusion models for data augmentation to address class imbalance in classification of plant species
- Utilized poisson blending and mixed gradient blending to generate 500+ enhanced samples for minority classes
- Conducted statistical evaluations to compare the performance of all augmentation methods

Machine Learning Research Intern May 2023 - November 2023
Indian Institute of Technology, Bombay Mumbai, India

- Improved the adaptation performance of source-domain trained models on unlabeled target domains without accessing source data using CNN and minimized catastrophic forgetting by implementing knowledge distillation
- Achieved an 8% improvement in accuracy on the target domain, with less than 4% degradation on the source domain
- Conducted experiments on PACS and Office31 datasets, showing the effectiveness for real-world applications

SKILLS

- **Programming Languages & Technologies** : Python, C/C++, JavaScript, SQL, LaTeX, HTML, CSS
- **Frameworks & Libraries** : SkLearn, Keras, PyTorch, TensorFlow, Numpy, Pandas, OpenCV, CUDA, Selenium, Node.js, React.js
- **Tools & Platforms** : AWS, Jupyter, Git, RESTful APIs, Microsoft Office

PROJECTS

Machine Learning Based Vegetative Drought Prediction August 2023 - January 2024

- Utilized satellite remote sensing and meteorological datasets for vegetative drought forecasting by implementing machine learning and deep learning models, and reducing error by 20% while conducting analysis of their performance

Deep Learning Applications in 5G RACH Procedure July 2022 - November 2022

- Applied time-series analysis techniques like Long Short-Term Memory (LSTM), ARIMA and Generative Adversarial Network (GAN) models to optimize the performance of RACH procedure in 5G networks (Link)

Face Emotion Detection using Machine Learning September 2024 - December 2024

- Explored techniques like hyperparameter tuning, dropout, regularisation, learning rate scheduler, data augmentation to improve accuracy in face emotion detection by fine-tuning ResNet-18 and Tiny-ViT. (Link)

PATENTS & PUBLICATIONS

- **Artificial Intelligence based approach to analyse the impact of green gold nanoparticles in cancer therapy and diagnosis** Dr. R. E. Ugandar; R. Ganesh; **Sayali Lokhande**; et al.
  Indian Patent Application Number - 202341027779, Status - Published on May 05, 2023
- **Decoding Drought: Embracing Simplicity in Effective Predictive Models** (Link)
  Akash Poptani*; **Sayali Lokhande***; Rahul Jashvantbhai Pandya; Sridhar Iyer
  IEEE Asia-Pacific Geosciences, Electronics and Remote Sensing (AGERS 2023) - **Best Student Presenter Award**

ACHIEVEMENTS & EXTRA-CURRICULAR ACTIVITIES

- Selected for **AI + Science Summer School 2023** on applications of AI & ML at University of Chicago, Illinois
- **Bronze Medal** in ISRO'S Web Based Visualisation Tool For Astrosat Observations in **Inter IIT Tech Meet 9.0** held at IIT Guwahati
- **Robotics Club Secretary** - Led a team of 30+ students in executing technical projects & organized events