SRISHTI YADAV

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I am a machine learning engineer with experience in computer vision based applications. I am a recent graduate from Simon Fraser University, Canada. I have worked with semi-supervised learning and class-imbalance problems. I have experience in implementing machine learning algorithms at scale.

SKILLSET

Software: MATLAB, Octave
Languages and Tools: PyTorch, TensorFlow, Python, Numpy, Scipy, OpenCV, Matplotlib as well as AWS cloud services like S3, EC2 and Amazon Sagemaker

EDUCATION

Master of Applied Science
Simon Fraser University, Canada, January 2021 CGPA: 3.92/4.33
Bachelor of Technology, Electronics and Communication
Uttar Pradesh Technical University, India, June 2016

EXPERIENCE

Machine Learning Intern February 2020-August 2020
UrtheCast, Vancouver, Canada

- I individually implemented machine learning system for satellite data (Landsat8, SPARCS, Sentinel 2 dataset) for multi-class prediction of cloud, shadow, and haze.
- Implemented data ingestion pipeline which takes in raw geospatial multi-dimensional data as input and converts it into standardized format.
- Scaled the algorithm using AWS cloud based services, example, EC2 for deployment server, S3 for data storage and docker for creating virtual environment and parallel deployment of multiple training jobs.
- Investigated and implemented optimization methods to improve cloud mask generation from S2 data using the Green, Red Edge, and Water Vapor band.

Graduate Research Assistant January 2018-February 2021
Networked Robotics and Sensing Laboratory
School of Applied Science, Simon Fraser University, Canada

Project Associate August 2017-October 2017
Helicopter and VTOL Laboratory
Department of Aerospace Engineering,
Indian Institute of Technology Kanpur, India

Research R&D May 2017-July 2017
Samsung IoT Innovation Lab
Department of Electrical and Computer Science,
Indian Institute of Technology Delhi, India

Research R&D June 2016-April 2017
Applied Cognitive Science Lab
School of Computing and Electrical Engineering,
Indian Institute of Technology Mandi, India

PROJECTS

Deep Attention Models for Human Tracking Using RGBD:

- Worked in a team of 4 to develop an adaptive appearance model to accurately detect color camouflage, even in the presence of complex natural objects.
- Improved the accuracy by approximately 50% and reduced the type I error by 23% and type II error by 5%.

Celestini Project India:

- Developed a prototype video analytic algorithm using Caltech pedestrian dataset to run on Raspberry Pi 3 Model B.
- Worked in a team of 2 where I was responsible for porting the code from MATLAB to Octave. Also, worked on pre-processing the data to clean images, remove noise to infer position, lane and density of vehicles in front of the camera.

Prototype Landslide Risk Communication System:

- Developed a system which forecasts and communicates occurrence of landslides.
- Conducted field survey and implemented a system for sensor deployment (sensors, microcontroller boards, GSM module and other electical components).

PUBLICATIONS

Book Chapter

Chaturvedi, P., Thakur, K., Mali, N., Kala, V. U.,Kumar, **S., Yadav**, S. & Dutt, V. (2017). A Low-Cost IoT Framework for Landslide Prediction and Risk Communication. In CRC Press: Internet of Things Concepts, Technologies, Applications, and Implementations (2017)

Journals

Rasoulidanesh, M., **Yadav, S.**, Herath, S., Vaghei, Y., & Payandeh, S. (2019). Deep Attention Models for Human Tracking Using RGBD. Sensors, 19, 750.

Selected for poster at WiML Workshop, **NeurIPS 2019**

Conferences

Yadav, Srishti & Payandeh, Shahram. (2018). Real-Time Experimental Study of Kernelized Correlation Filter Tracker using RGB Kinect Camera. IEMCON.2018.

Naresh, M. , Chaturvedi, P. , **Yadav, S.** , Dutt, V. , Uday, K. V. (2017). 'Training of Sensors for Early Warning System of Rainfall Induced Landslides'. World Academy

of Science, Engineering and Technology, International Science Index, Geotechnical and Geological Engineering, 11(12), 373.

OUTREACH

- WiCV-CVPR,WiCV-ECCV, MDPI	Reviewer
- Women in Computer Vision (WiCV) @CVPR 2021 (Virtual)	Advisor
- Women in Computer Vision (WiCV) @CVPR 2020 (Virtual)	Organizer
- Women in Machine Learning @NeurIPS 2019 (Vancouver,Canada)	Organizer
- Buds@NeuRIPS Social @NeurIPS 2019 (Vancouver, Canada)	Organizer
- Invent the Future, AI4ALL@SFU (Vancouver, Canada)	Mentor(Robotics)
- Teach India by Times Group, 2013 (New Delhi, India)	Teacher Volunteer