

SRISHTI YADAV

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I am a machine learning engineer with experience in computer vision based applications. I am pursuing research at 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

Simon Fraser University, Canada

Master of Applied Science, January 2018- Present

CGPA: 3.92/4.33

JSS Academy of Technical Education, Noida, India

Bachelor of Technology, Electronics and Communication, June 2016

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 two 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 etc).

EXPERIENCE-INDUSTRY

Machine Learning Intern

February 2020-August 2020

UrtheCast, Vancouver, Canada

- As part of R&D team, 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.

EXPERIENCE-RESEARCH

Graduate Research Assistant January 2018-January 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 Intern May 2017-July 2017
Samsung IoT Innovation Lab
 Department of Electrical and Computer Science,
 Indian Institute of Technology Delhi, India

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

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