SRISHTI YADAV

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I am a machine learning engineer with an expertise in computer vision based applications. I am pursuing research at Simon Fraser University on kernel based tracking in images and have experience in implementing machine learning algorithms at scale.

SKILLSET

Software: MATLAB, Octave
Languages and Tools: PyTorch, TensorFlow, Python, Numpy, Scipy, OpenCV, Matplotlib, GDAL 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-present
UrtheCast, Vancouver, Canada

- As part of R&D team, I solely 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.

Robotics Intern April 2016-June 2016
Omnipresent Robot Tech, Delhi, India
Worked in the domain of robotics, tracking with Arduino, OpenCV & C++, and intelligent electronics. The project included Speedobotix, an Arduino-based robot.

EXPERIENCE-RESEARCH

Graduate Research Assistant Jan 2018-present
Networked Robotics and Sensing Laboratory
School of Applied Science, Simon Fraser University, Canada

Project Associate August 2017-November 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.