Omkar Thawakar

https://omkarthawakar.github.io

Github, LinkedIn, Medium

Bachelor of Technology
Computer Science & Engineering Department
SGGSIE&T Nanded, 431606

Email : omee0805@gmail.com
Voice : +91 9403941016
Address : Vishnupuri, Nanded

OBJECTIVE

A CS graduate with application development and research skills seeking an opportunity to work on real world industry problems.

INTERNSHIP

1. Research and Development

Organisation : IIT Ropar

Guide : *Dr. Subramanyam Murala , Assistant Professor, IIT Ropar*

- Created a Generative Adversarial Network for Image and Video Super Resolution for multi scale resolutions. Role of this network is to create super resolved image with temporal consistency between consecutive video frame.
- Works for images as well as videos. Single Network can used for any scale resolution.
- Results obtained with proposed model outperforms state-of-the-art methods for SR.
- Plotting and visualisation of networks learning in Tensor Board.

EDUCATION

Course/Examination	Board	Year	Institute/School	CGPA / %
B.Tech Computer Science	SGGSIE&T Nanded	2015-2019	SGGSIE&T Nanded	7.9
Intermediate (Class XII)	State Board	2014-2015	Bhartiya Mahavidyalaya, Amravati	83.73%
Metriculation (Class X)	State Board	2011-2012	G.R.Kabra Higher Secondary School, Amravati	90.91%

PUBLICATIONS

1. Omkar Thawakar, Prashant W Patil, Akshay Dudhane, Subrahmanyam Murala, U V Kulkarni, “Image and Video Super-Resolution with Generative Adversarial Network” accepted in IEEE International conference on Advanced Video and Signal based Surveillance Taipei, Taiwan 2019.
2. Prashant W Patil, Omkar Thawakar, Subrahmanyam Murala, “ Motion Saliency Based Generative Adversarial Network For Underwater Moving Object Segmentation ” accepted in IEEE International Conference on Image Processing, Taipei, Taiwan 2019.
3. Omkar Thawakar, Alok Jadhav, Charul Rathore, “Application of Machine Learning for profile reconstruction of IPM device” in IEEE International Conference on Computing: Communication, Networks and Security (IC3NS-2018).
4. Omkar Thawakar, Pranav Gajjewar, “Training Optimisation of Feedforward Neural Network for Binary Classification” in IEEE ICCCI 2019.

PROJECTS

1. CVPRLab Website | iitrpr.cvpr.in

- Design and Developed the fully functional dynamic website for CVPR Lab, IIT Ropar.
- Effectively used Django functionality for creating relational database used in backend.
- Robust and responsive design which leads efficient and faster behaviour.

2. Real Time Piston Ring Detection |

(Guide : Dr. Subrahmanyam Murala, Assistant Professor, IIT Ropar)

- Created Tensorflow model for piston ring detection using image-to-image translation.
- Deployed the model to process real time data on NVIDIA-Jetson nano for Industrial use.

3. PhotographyAdda |

- Optimal implementation of dynamic social networking website in Django for photographers to share their photos and albums on a common platform.
- Clean pragmatic design which leads faster and responsive behaviour.
- Effective use of Django database to implement large relational database.

4. Reinforcement Training of Line Follower Robot |

- Self Learning Robot built with Q-Learning which learns to follow its path without explicitly programmed. Faster Learning of Q table with given states.
- Real time faster training which further extended to Robotic-Arm and Walking Humanoid robot.

... Details

TECHNICAL SKILLS

Programming language **:** Python, C, Java, JavaScript, Ruby.
Database **:** MySQL
Micro-controller Tools **:** NVIDIA-Jetson, Raspberry Pi , Arduino IDE.
Frameworks **:** Tensorflow, Keras, Django, Ruby on Rails, PySpark.

ACHIEVEMENTS

- **Best Research Paper award** and Best Paper Award in International Conference on Computing: Communication, Networks and Security (IC3NS-2018).
- **Best Project** award for B.Tech thesis in SGGSIE&T Nanded.
- **First Prize** in Maze Solver Robot for three consecutive years (2016-2018) in Pragya (National Level Technical Fiesta).