Naren Doraiswamy

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#63, 3RD CROSS,VHBCS, RAJARAJESHWARINAGAR

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MAIL LINKEDIN GITHUB

Research Experience:

IACV lab, Indian Institute of Science

Deep Learning and Computer Vision Research Assistant   *Aug 2018 – Present*

- Worked on few shot Semantic segmentation to segment unseen novel classes.
- Working on developing a novel few shot instance segmentation algorithm.
- Working on developing efficient domain adaptation algorithms for unsupervised and semi supervised methods.

Student Satellite Program, Indian Space Research Organization

Research Intern   *Jan 2015 - July 2015*

- Worked on implementing the kalman filter to obtain better estimates of gyro sensors.
- Worked on implementing extended kalman filter for attitude control of the satellite.

Publications:

Weakly Supervised Few-shot Object Segmentation using Co-Attention with Visual and Semantic Inputs.
Mennatullah Siam*, **Naren Doraiswamy***, Boris Oreshkin*, Hengshuai Yao, Martin Jagersand. **IJCAI 2020**
(**Acceptance Rate: 12.6%**)

One-Shot Weakly Supervised Video Object Segmentation.
Mennatullah Siam*, **Naren Doraiswamy***, Boris Oreshkin*, Hengshuai Yao, Martin Jagersand. Accepted at **ICLR PML4DC workshop 2020**

In Preparation:
Adversarial Active learning for imbalanced domain adaptation scenario.
            With Dr. Soma Biswas (To be submitted to AAAI 2021)
Few-shot Instance segmentation with cross-attention networks.
            With Mennatullah Siam. PhD student, University of Alberta. (To be submitted to NeurIPS 2020)

Work Experience:

Robert Bosch, India

Associate Software Engineer   *Aug 2016 – July 2018*

- Worked in developing data based models in component model team for engine management systems.
- Developed Machine learning models for key engine parameter estimations like common rail pressure, turbo-charger lag which were used in Vehicle simulation modules.
- Initiated the development of inference model for Cylinder fill correction factor using calibrated data from OEMs.
- Also worked on model predictive control systems for developing the HiL models.
- Keynote speaker at Bosch Technical Forum.

Udacity Deep Learning Mentor and Code Reviewer   *January 2018 - Present*

- Providing actionable and helpful feedback to student projects in their code development.
- Advice on technical topics, explanation of incorporating and building efficient deep learning models.

Education:

RNS Institute of Technology, Bangalore

Bachelors' of Engineering(Honors) in Electronics and Communication,   *August 2012- June 2016*

- Percentage: 79.14%.(Top 5% in class)   Converted GPA(According to WES): 3.79/4.0

Thesis: A numerical framework for GPR feature extraction and simulation using FDTD algorithm.

SBM Jain College, Bangalore
Pre-University Education, Class 12,   *June 2010- Mar 2012*
  - Percentage: 94.68%.

Non degree Education

Computer Vision Foundation Nanodegree   March 2018-May 2018
Machine Learning Engineer Nanodegree   July 2017 – Feb 2018
Deep Learning Foundation Nanodegree   Jan 2017– July 2017

Skills:

Programming skills:
  - Python, C, C++, Matlab, Bash.

Toolkits/Packages:
  - Pytorch, Tensorflow, OpenCV, Caffe

Awards and Honors:

  - Ministry of human resource development scholarship [MHRD], Govt. of India.
  - Social welfare Scholarship.
  - International Science Olympiad Finalist 2012.
  - Jnanamitra Pratibha Puraskara award for outstanding performance in 10th Board Examination.

Extracurricular activities:

  - District level football player.
  - President of the science and literary club in School.

Volunteer Experience:

  - **AI AMBASSADOR** @ Nurture.ai: I teach deep learning every Saturday at a community meetup and aim towards building a passionate and efficient AI community in the city.

  - **Bosch CSR group**: Part of the group which taught mathematics and science classes for underprivileged high school kids.

  - **MUST Research Club:** Part of the enthusiastic AI non-profit group headed by the principal researcher of Salesforce, India which holds and organizes seminars, classes and collaborates to solve AI problems.