Nagabhushan S N

Contact Information

Address	Indian Institute of Science, SP2.25, ECE Dept
	Bangalore, Karnataka, India - 560012
Email	nagabhushans@iisc.ac.in
Phone	+91 9035838220
Webpage	https://nagabhushansn95.github.io/

Research Interests

◇ Image and Video Signal Processing

◇ Deep Video Prediction: Applications and Evaluation

◇ Computer Vision

◇ Machine Learning

Education

Ph.D. - Indian Institute of Science (IISc), Bengaluru   Aug 2018 - Present
Dept of Electrical Communication Engineering
  ◇ Advisor   : Dr. Rajiv Soundararajan
  ◇ CGPA   : 9.59

B.E. - PES Institute of Technology, Bengaluru   Aug 2012 - May 2016
Dept of Electronics and Communication Engineering
  ◇ Project Advisors   : Dr. Vamsi Krishna, Dr. Sanjeev Gurugopinath
  ◇ CGPA   : 9.93 (Gold Medallist)
  ◇ GATE Score   : 810 (AIR 233)

P.U.C. - Govt [Ex-MPL] College, Ballari   Jun 2010 - May 2012
  ◇ Specialization   : Science (PCME)
  ◇ Class XII Score   : 96% (District Topper)
  ◇ K-CET Rank   : 207

School - Bala Bharathi, Ballari   Jun 1998 - Mar 2010
  ◇ Class X Score   : 96.8% (District Topper)

Course Work

Mathematics	: Linear Algebra, Probability and Random Process, Linear and Non-Linear Optimization
Electrical	: Digital Image Processing, Digital Video: Perception and Algorithms, Computer Vision, Machine Learning for Signal Processing, Detection and Estimation Theory

Computer Skills

Programming Languages	: Java, Python, Android, MATLAB
Platforms	: Windows, LINUX, MacOS
Softwares	: LaTeX

Industrial Experience

Cisco Systems India Pvt Ltd   Aug 2016 - Jul 2018
- ◇ Role   : Software Engineer
- ◇ Team   : Software Integration and Orchestration (Advanced Services)

Elseem Inc.   Jun 2015 - Jul 2015
- ◇ Role   : Intern
- ◇ Team   : Research and Development

Academic Experience

PES University (PESU)   Jan 2021 - May 2021
- ◇ Visiting Faculty
- ◇ Offered a course on Matrix Theory in Jan 2021 semester.

Indian Institute of Science (IISc)   Oct 2020 - Present
- ◇ Teaching Assistant for Matrix Theory and DIP courses.
- ◇ Dept of Electrical Communication Engineering.

Publications

- ◇ Nagabhushan Somraj, Manoj Surya Kashi, S. P. Arun, and Rajiv Soundararajan. Understanding the perceived quality of video predictions. *arXiv e-prints*, page arXiv:2005.00356, 2021.
    - ➢ Under review: Signal Processing Image Communication journal.

- ◇ Vijayalakshmi Kanchana, Nagabhushan Somraj, Suraj Yadwad, and Rajiv Soundararajan. Revealing disocclusions in temporal view synthesis through infilling vector prediction. In *IEEE Winter Conference on Applications of Computer Vision (WACV)*, 2022.
    - ➢ Accepted: To appear in WACV 2022.

- ◇ Nagabhushan Somraj, Pranali Sacheti, and Rajiv Soundararajan. Temporal view synthesis for dynamic scenes.
    - ➢ Under review: CVPR 2022.

Projects

Face Detection using Aggregate Channel Features   2019
- ◇ Based on paper: Bin Yang, Junjie Yan, Zhen Lei, and Stan Z Li. Aggregate channel features for multi-view face detection. In *IEEE International Joint Conference on Biometrics*, 2014

Intra-Campus Wi-Fi Calling System   2016
- ◇ Developed a system to make voice calls and transmit messages within a campus using Wi-Fi and without internet. Designed a simple protocol to handle messaging and calls.

Invited Talks

- ◇ Naturalness Assessment for Video Prediction
    - ➢ Network Seminar Series, IISc, Oct 2020.

- ◇ Generative Adversarial Networks (GANs) and their Applications
    - ➢ PES University, Jan 2020.