

# Praneeth Narayanamurthy

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## Education

**B.Tech.**, Electrical and Electronics Engineering, National Institute of Technology Karnataka, 2014.  
Thesis: *Efficient-Estimation of Lightning Parameters using Genetic Algorithms*.

**Ph.D.**, Electrical Engineering, Iowa State University, 2016 – 2020 (expected).

## Work Experience

**Project Assistant:** July 2014 – Dec. 2015, Indian Institute of Science, Bangalore.

## Graduate Courses

Probability and Random Processes, Linear Algebra, Convex Optimization, Detection and Estimation Theory, Principles of Data Science, Design and Analysis of Algorithms, Deep Machine Learning, Statistical Machine Learning

## Skills

Proficient: MATLAB,  $\text{\LaTeX}$ ,

Intermediate: Python, C++, Perl, Bash

Beginner: Julia, Scheme

## Honors and Awards

Certificate of Excellence from Central Board of Secondary Education for securing 100% grade in Mathematics and Sanskrit in 10th standard – 2008

Indian National Mathematical Olympiad Awardee – 2009

Finalist of National GE Edison Challenge – 2013

## Publications and Pre-Prints

1. MEDRoP: Memory-Efficient Dynamic Robust PCA,  
**Praneeth Naryanamurthy** and Namrata Vaswani,  
manuscript.

2. Provable Dynamic Robust PCA or Robust Subspace Tracking,  
**Praneeth Narayanamurthy** and *Namrata Vaswani*,  
under review, IEEE Transactions on Information Theory.
3. Finite Sample Guarantees for PCA in non-isotropic and Data-Dependent Noise,  
*Namrata Vaswani* and **Praneeth Narayanamurthy**, extended abstract to appear, Allerton 2017,  
long version under revision, Annals of Statistics.
4. Robust PCA and Robust Subspace Tracking,  
*Namrata Vaswani, Thierry Bouwmans, Sajid Javed* and **Praneeth Narayanamurthy**,  
under review, IEEE Signal Processing Magazine.
5. Provably correct Robust Subspace Tracking: A Correlated-PCA-based Approach,  
*Brian Lois, Namrata Vaswani* and **Praneeth Narayanamurthy**, NIPS workshop on LHDS, 2016.
6. Efficient Resampling of speech signals in Shift-Invariant Spaces,  
*Gutta Sreedevi, Praneeth Narayanamurthy*, and *Chandra Sekhar Seelamantula*, NCC 2016.
7. Dictionary-Learning based Post-Filter for HMM-based Speech Synthesis,  
**Praneeth Narayanamurthy** and *Chandra Sekhar Seelamantula*, TENCON 2015.

## Talks

1. *MEDRoP: Memory Efficient Dynamic Robust PCA*  
Microsoft Research India  
ECE Department, Indian Institute of Science, Bangalore  
December 2017