

# ANKITA RAJ

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## EDUCATION

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- Indian Institute of Technology Delhi**, New Delhi, India *December 2018 - Present*  
Ph.D. in Computer Science and Engineering  
Advised by Dr. Chetan Arora  
CGPA: 8.46/10
- Indraprastha Institute of Information Technology Delhi**, India *July 2014 - June 2016*  
M.Tech in Electronics and Communication Engineering  
CGPA: 9.25/10
- North Eastern Regional Institute of Science and Technology**, India *July 2010 - May 2014*  
B.Tech in Electronics and Communication Engineering  
CGPA: 4.96/5

## EXPERIENCE

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- Indian Institute of Technology Delhi** *Jan 2019 - Present*  
*Teaching Assistant* *New Delhi, India*  
Computer Vision, Machine Learning, Digital Image Processing, Introduction to Computer Science, Data Structures and Algorithms, Advanced Functional Brain Imaging.
- Tata Consultancy Services** *Aug 2016 - Dec 2018*  
*Researcher, Robotics Lab* *Noida, India*  
Worked on computer vision problems like automatic robot grasp detection, object detection using RGB and Depth data, object recognition using incremental learning, with a focus on real-world deployment. Developed hands-on experience with deep learning frameworks and popular architectures.
- Indraprastha Institute of Information Technology Delhi** *Aug 2014 - May 2016*  
*Teaching Assistant* *New Delhi, India*  
Probability and Statistics, Optimization, Signals and Systems, Maths I (Linear Algebra), Maths II (Differential Equations).
- Indian Institute of Technology Guwahati** *Jun 2013 - Jul 2013*  
*Research Intern (under Dr. S.R.M. Prasanna)* *Guwahati, India*  
Developed an algorithm for gender identification through speech.

## PUBLICATIONS

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- Identifying Physically Realizable Triggers for Backdoored Face Recognition Networks**  
Ankita Raj, Ambar Pal, Chetan Arora.  
IEEE International Conference on Image Processing (ICIP), 2021. [\[link\]](#)
- Weighted-A\* Based Energy Efficient Resource Allocation in G.Fast**  
Ankita Raj, Pravesh Biyani.  
IEEE Transactions on Communications, Nov. 2019. [\[link\]](#)
- HiFI: A Hierarchical Framework for Incremental Learning using Deep Feature Representation**  
Ankita Raj, Anima Majumder, Swagat Kumar.  
IEEE International Conference on Robot and Human Interactive Communication (RO-MAN), 2019.  
[\[link\]](#)

**A\* algorithm based power minimization for discontinuous operations in G.fast**

**Ankita Raj**, Pravesh Biyani, Sandip Aine.

IEEE International Conference on Communications (ICC), Paris, 2017, [\[link\]](#)

**Analysis and Synthesis Prior Greedy Algorithms for Non-linear Sparse Recovery**

Kavya Gupta, **Ankita Raj**, Angshul Majumdar.

Data Compression Conference (DCC). IEEE, 2016. [\[link\]](#)

## AWARDS AND ACHIEVEMENTS

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<b>Best M.Tech Thesis</b> in Communication and Signal Processing, IIIT Delhi	2016
<b>Gold Medal</b> for securing first position, Degree Module, NERIST	2014
<b>Gold Medal</b> for securing first position, Diploma Module, NERIST	2012
<b>Gold Medal</b> for securing first position, Base Module, NERIST	2010
<b>Ninth position</b> in High School Leaving Certificate Examination, Assam	2008

## TECHNICAL STRENGTHS

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<b>Programming Languages</b>	Python, C++, Java
<b>Tools and Technologies</b>	Tensorflow, PyTorch, Keras, Caffe, MATLAB