

# Anannya Uberoi

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## EDUCATION

AUGUST 2015 – MAY 2019 **Indraprastha Institute of Information Technology (IIIT Delhi)**, New Delhi  
Bachelor of Technology in COMPUTER SCIENCE & ENGINEERING GPA: 8.96 / 10  
*Honors Graduate | Minor in Computational Biology*

## PROJECTS

MAY 2015 **SM Arya Public School**, New Delhi | CBSE, Class XII PER: 96.8% | School Rank 2

- JAN 2018 – DEC 2018 **Digital Presentation Attacks on Facial Images**  
*Advisor: Dr. Richa Singh and Dr. Mayank Vatsa, IIIT Delhi*  
Undergraduate researcher at the [Image Analysis and Biometrics \(IAB\) Lab](#), worked towards designing a ubiquitous deep-learning based algorithm to help detect digital and physical facial spoofing attacks.
- [Link](#)  
JAN 2018 – APR 2018 **brú - A Complete Hostel Portal**  
*Advisor: Dr. Ponnuram Kumaraguru, IIIT Delhi*  
Designed and developed the student and admin end for a complete hostel portal to solve the chaotic allocation process with automated room allotment. Conducted contextual inquiry and task analysis to identify user needs.
- [Link](#) | [Audio](#)  
SEP 2017 – DEC 2017 **Investigations into an Automated Music Generation Machine**  
*Advisor: Dr. Saket Anand, IIIT Delhi*  
Implemented machine learning algorithms such as the Restricted Boltzmann Machine and Recurrent Neural Networks for a computer to generate its own thematic music, post training with already existing musical pieces.
- [Link](#)  
SEP – DEC 2017 **Group Photo Optimization**  
*Advisor: Dr. A V Subramanyam, IIIT Delhi*  
Devised an algorithm to generate a final “optimized” group picture given multiple group pictures. Selected faces are merged into the final image using homography, template matching, and blending techniques.
- AUG 2017 – NOV 2017 **In-Silico Tool for Studying the Apoptotic Cell Death Pathway**  
*Advisor: Dr. Subhadip Raychaudhary, Center for Computational Biology, Delhi*  
Modeled a robust Monte-Carlo simulation of lipid, ligand, receptor and BCR molecule interactions on a cell membrane.

## PUBLICATIONS

- Suril Mehta, Anannya Uberoi, Akshay Agarwal, Mayank Vatsa, and Richa Singh; “Crafting A Panoptic Face Presentation Attack Detector”. *IAPR International Conference On Biometrics (ICB)*, 2019.

## HONOURS AND ACHIEVEMENTS

- 2019 Presented the poster “I am Kalam: Analyzing and Generating Kalam’s Answer Patterns” at AI for Computational Social Systems ([ACSS](#)) workshop 2019.
- 2018 Awarded full student grant for attending Grace Hopper Celebration, Houston, Texas.
- 2017-’18 Selected for [Women Techmakers IWD Summit](#), Google Sydney’17 and Google Paris’18.
- 2017 Awarded full grant by Google for attending [Grace Hopper Conference India](#) (GHCI).
- 2017 The youngest of the 75 recipients of [Google Anita Borg Scholarship](#), Asia Pacific. Invited to the retreat at Google, Campus Seoul, South Korea. Story featured in [The Hindustan Times](#), [The Tribune](#) and [Mail Today](#).
- 2017 Among top 60 selected students for [ACM India Summer School](#) on Machine Learning and Natural Language Processing, IIT Kharagpur. [\[Certificate\]](#)
- 2015-’18 Six-time **Institute Chairman’s Merit Scholarship** recipient for academic performance.
- 2015 CBSE Certificate of Merit holder for being among the top 0.1 per cent students in English. [\[Certificate\]](#)

## TECHNICAL AND PERSONAL SKILLS

Software: Python, C/C++, Java, MATLAB, MySQL, Django, Android, HTML, CSS, JavaScript,  $\text{\LaTeX}$

Major Coursework: Machine Learning, Image Analysis, Natural Language Processing, Information Retrieval, Biometrics  
Introduction to Epidemiology, Machine Learning for Biomedical Applications, Quantitative Biology

Communication: Proficient in English and Hindi.

## EXPERIENCE

- SUMMER 2018 **Research Intern**  
**IBM Research Lab**, Bangalore  
Part of the AI Tech Team at IBM. Researched on early warning signals for prediction of non-performing assets and credit risks from unstructured data on a comprehensive ontology visualization service for IBM Watson.
- MONSOON 2017 **Undergraduate Teaching Assistant**  
**Department of Mathematics**, IIIT Delhi  
TA for the course, Linear Algebra (Math I), offered by Dean of Academics, Dr. Samaresh Chatterji.

SUMMER 2017	<b>Research Intern</b> <b>MIT Media Lab – LV Prasad Eye Institute, Hyderabad</b> Worked on an Android app driven portable corneal topography generation tool with auto-positioning, camera calibration and video capture. Designed algorithms implemented in Python for obtaining deviations by comparison with reflections off a healthy cornea. Tool will be deployed to detect disorders such as keratoconus and corneal blindness at an early stage.
SUMMER 2017	<b>Technical Content Writing Intern</b> <b>GeeksforGeeks</b> Worked on one of the leading blogs on algorithms, coding problem sets and computer science to add to quality, approachable content and web resources. In addition, added resources for crucial Machine Learning and Database Management topics. Offered GeeksforGeeks Elite Author's Club for summer 2018.

## COMMUNITY WORK

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SUMMER 2016	<b>Teacher's Assistant</b> <b>Hope Foundation</b> Volunteered at the Asharan Orphanage, Hope Foundation, Delhi. Taught children English, basic mathematics and an introduction to computer knowledge and technological awareness.
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## LEADERSHIP AND EXTRA-CURRICULARS

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- **Head**, Content Vertical, Communications Cell, IIIT Delhi.
- **Mentor**, Student Mentorship Program, IIIT Delhi.
- **Founding Member**, [Women in Tech \(WiT\)](#) Club, IIIT Delhi.
- Member, **Public Relations Team**, [Research Showcase](#)'18 and '17, IIIT Delhi.
- Published poet at **Lapis Lazuli**, an International Literary Journal, Vol 7, Spring'17 Edition.
- Published writer at **eFiction India**, India's leading online fiction magazine, May'16 Edition.
- **Club Coordinator**, [PhiloSoc](#), the Philosophy Society of IIIT Delhi.
- **Editor-In-Chief**, official college magazine, [Kaleidoscope](#) for two consecutive years.
- Representative, **Indian Delegation**, CISV Camp, Oslo, Norway.
- Western Classical Vocalist, Austrian Cultural Forum, New Delhi.