

# Rohan Chacko

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## Education

- 2017–present **3<sup>rd</sup> year B.Tech(Hons.) in Computer Science Engineering**, *International Institute of Information Technology*, Hyderabad, *CGPA - 8.72*.
- 2016–2017 **Senior Secondary, CBSE**, *Delhi Private School*, Sharjah, U.A.E, *96.8%*.
- 2014–2015 **Secondary, CBSE**, *Delhi Private School*, Sharjah, U.A.E, *CGPA - 10*.

## Work Experience

- 2019–present **Honors Research**, *Centre for Visual Information Technology*, IIIT Hyderabad.  
Working on single view 3D Human Reconstruction from images and videos under Prof. P.J Narayanan (Director) and Prof. Avinash Sharma
- Spring 2019 **Teaching Assistant**, *Computer Systems Organisation*, IIIT Hyderabad.  
Involves preparing tutorial sessions, creating problem sets and grading assignments under Prof. Avinash Sharma
- Monsoon **Teaching Assistant**, *Data and Applications*, IIIT Hyderabad.  
2019 Involved holding lab/tutorial sessions, creating problem sets and grading assignments under Prof. Kamalakar Karlapalem
- Monsoon **Research Assistant**, *Five Fingers Innovative Solutions*, Hyderabad.  
2018 Created a software to detect and track medical equipment in a RGB video using featureless edge based template matching with a set of mesh models. Technologies used: OpenCV, Python, Blender

## Major Projects

- Reflection removal **Implemented the paper 'Image Reflection removal using ghosting cues'**.  
Implemented the paper by applying the idea of ghosted reflections using a double-impulse convolution kernel. The method uses only a single input image.
- Blockchain payment gateway **Developed a blockchain application to enable transparent fund monitoring and payment during Indian elections**.  
Created a Proof-of-Authority based blockchain payment application to allow political parties to receive and spend funds in a transparent process. Won **first** place for **Microsoft India CodeFunDo 2019**.
- AI Bot **Extreme Tic-Tac-Toe Bot**.  
Developed an AI bot that plays a variant of tic-tac-toe using minimax algorithm with alpha-beta pruning and a smart heuristic function to find the optimal move.
- Mobile Ad-Hoc network **Developed an application to create a mobile ad-hoc network during natural disasters**.  
Each node in the network sends its location co-ordinates to every other node in the network. This allows for faster detection and rescue of people in dangerous areas. Won **first runner's up** for **Microsoft India CodeFunDo 2018** with this idea.

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## Achievements

- 2019 **Winner** of CodeFunDo Hackathon. Organized by **Microsoft**, India
- 2019 **19th position globally** for BountyCon 2019. Organized by **Google and Facebook**
- 2019 **16th position nationally** for InCTF organized by Amrita university, India
- 2018 **1st Runner's up** for CodeFunDo Hackathon. Organized by **Microsoft**, India
- 2018 -'19 Selected for Dean's List for Academic Excellence. Awarded to top 5% of the batch
- 2015 Winner of **Sharjah Sustainability Award** for creating a novel surveillance system to protect the biodiversity hotspots in U.A.E. Awarded by the Sharjah government.
- 2015 Won the prestigious **Sharjah Award** for overall excellence in curricular and extra-curricular activities. Awarded by the Ruler of Sharjah, U.A.E, to students who have excelled in academic and extra-curricular activities.
- 2014 **One of 90 Global Finalists** for the Google Science Fair. Created an accident detection and location system which automatically sends GPS coordinates of a vehicle in an accident to emergency rescue services.
- 2014 Won the prestigious **Sheikh Hamdan Award** for overall excellence in curricular and extra-curricular activities. Awarded by the Finance Minister of U.A.E to the top performing students of the country.

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## Relevant Courses Taken

- AI/CS track Computer Vision\*, Statistical Methods in AI, Digital Image Processing, Artificial Intelligence, Data Structures, Algorithms, Automata Theory, Database Systems
  - Mathematics track Probabilistic Graphical Models\*, Optimisation Methods\*, Graph Theory, Linear Algebra, Probability Theory, Discrete Mathematics, Complex Analysis, Group Theory
- \*=Course in progress

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## Technical Skills

- Programming and Scripting C, C++, Python, Matlab, Javascript, Java, Bash, Go, HTML5
- Frameworks Django, Flask, ReactJS, Materialize, Bootstrap
- Miscellaneous Pytorch, Scikit-learn, Android Studio, Git, OpenGL, WebGL, MySQL, SQLite3, Neo4j, BaseX, Solr

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## Positions Held

- 2018-present Senior member of the the Cyber-Security Club of IIIT-Hyd
- 2016 -'17 Head Boy of the school