Rohan Chacko

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Education

2017–present	**3rd year B.Tech in Computer Science Engineering**, *International Institute of Information Technology*, Hyderabad, *CGPA - 8.65*.
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

Monsoon 2019	**Honors Research**, *Centre for Visual Information Technology*, IIIT Hyderabad. Working on 3D Human Reconstruction under Prof. P.J Narayanan (Director) and Prof. Avinash Sharma
Monsoon 2019	**Teaching Assistant**, *Data and Applications*, IIIT Hyderabad. Involves holding lab/tutorial sessions, creating problem sets and grading assignments
Aug-Nov 2018	**Research Assistant**, *Five Fingers Innovative Solutions*, Hyderabad. Created a software to detect and track medical equipment in a 2D video using featureless edge based template matching with a set of mesh models. Technologies used: OpenCV, Python, Blender

Major Projects

Resume parser	**Developed an application to parse resumes and auto-generate questions**. Created an application to parse resumes and auto-generate questions based on a resume for applicant filtering and ranking. Technologies used: gensim, scikit-learn.
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.
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.
Proxy Server	**Multi-threaded HTTP proxy server**. Created a web proxy server using socket programming. Implemented LRU caching, user authentication, URL blacklisting.
Bash Shell	**Implemented a linux shell in C similar to bash**. Created a shell using system call libraries in C to implement command parsing and execution. Features included: piping, I/O redirection, signal handling.
WebGL Game	**Subway Surfers 3D Game**. Created a 3D variant of subway surfers using WebGL. Implemented real world player motion, collision detection, textures, lighting

Achievements

2019	**19th position globally** for BountyCon 2019. Organized by **Google and Facebook**
2019	**16th position nationally** for InCTF organized by Amrita university
2018	Won **1st Runner's up** for Microsoft CodeFunDo Hackathon
2018	Selected for Dean's List for Academic Excellence. Awarded to top 5% of the batch
2014	**One of 90 Global Finalists** for the Google Science Fair.
2014	Won the prestigious Sheikh Hamdan Award for overall excellence in curriculars and extra-cuuriculars. Awarded by the Finance Minister of U.A.E to the top performing students of the country.

Relevant Courses Taken

Vision track	Statistical Methods in AI*, Digital Image Processing*, Artificial Intelligence, Digital Signal Analysis
CS track	Data Structures, Algorithms, Computer Networks, Operating Systems, Systems Architecture, Database Systems, Graphics, Automata Theory
Mathematics track	Graph Theory, Linear Algebra, Probability Theory, Discrete Mathematics, Complex Analysis, Group Theory
	*=Course in progress

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
OS	GNU/Linux, Windows