



**RAHUL BOTHRA**

Course : B.E. (Hons.), Computer Science, 2020  
Email : f2016015@pilani.bits-pilani.ac.in  
Mobile : 7733052890  
CGPA : 7.85



Subjects / Electives	Logic in Computer Science,Data Structures and Algorithms,Digital Design,Object Oriented Programming
Technical Proficiency	Java, C++, Python, Algorithms

SUMMER INTERNSHIP / WORK EXPERIENCE	
<b>Student Developer, Google Summer of Code</b> <ul style="list-style-type: none"><li>Worked on project "<a href="#">Implement cross version Python support for Sugar</a>" under Walter Bender</li><li>Ported and refactored core Python modules and C Extensions to the newer major version</li><li>Migrated dbus and telepathy based backend of the Sugar OS to its PyGObject counterpart</li></ul>	May 2018 - Aug 2018
<b>Software Engineer Intern, Vahan Inc</b> <ul style="list-style-type: none"><li>Developed customized dashboards for clients providing relevant data analytics</li><li>Made unit tests for core modules and did hotfix</li></ul>	May 2017 - Jun 2017
<b>Levitation Engineer, Hyperloop India</b> <ul style="list-style-type: none"><li>Designed and manufactured the Levitation assembly of the pod to maximize the lift to drag ratio</li><li>Selected among the 24 world finalists teams for the SpaceX Global Challenge</li></ul>	Sep 2016 - Jun 2017
<b>Teaching Assistant, Birla Institute of Technology and Science</b> <ul style="list-style-type: none"><li>Taught students and resolved doubts in "Computer Programming" and "Logic in Computer Science" courses</li><li>Prepared questions and invigilated during the evaluative components in the courses</li></ul>	Aug 2017 - Present
<b>Lecturer, Birla Institute of Technology and Science</b> <ul style="list-style-type: none"><li>Teaching CSD course Data Analytics with Python,</li><li>Other tasks involved preparing and evaluating assignments, and P2P mentoring</li></ul>	Jan 2019 - Present

PROJECTS	
<b>Heart Rate Measurement using Web Cameras - Image Processing</b> <ul style="list-style-type: none"><li>Using high fps cameras to detect green light variation in a human face and predict the heart rate</li><li>Attempt to port to low fps cameras and convert it into a mobile application</li></ul>	Jan 2019 - Present
<b>Introducing Seam Carving on - 3D Models, 360 degree images</b> <ul style="list-style-type: none"><li>Extending seam carving to 360 degree images and 3D models</li><li>Optimize the weighing algorithm for pixels to prevent critical objects from being carved</li></ul>	Aug 2018 - Present
<b>BOB   Bot of BITS - APOGEE Winner</b> <ul style="list-style-type: none"><li>Created a NLP &amp; Flask based Chatbot to answer queries of BITS students</li><li>Used compressed tries and BFS traversal to traverse and process queries</li></ul>	Feb 2018 - Mar 2018
<b>Automate Chant Detection in Kabaddi - 5th Rank in ICSE 2017</b> <ul style="list-style-type: none"><li>Proposed algorithm to use Image recognition and syllable analysis to lip read the players chanting and audio analysis to safeguard from false positives</li></ul>	Sep 2017 - Oct 2017

POSITION OF RESPONSIBILITY	
<b>Professional Assistant - SWD, BITS Pilani</b> <ul style="list-style-type: none"><li>Revamping the SWD web portal built on VB, MS Server and .NET used by over 5000 people</li></ul>	Jan 2019 - Present
<b>Development SIG Coordinator - BITS ACM</b> <ul style="list-style-type: none"><li>Collaborate with ACM and conduct "Special Interest Groups" (SIG) Lectures and workshops over the year in college</li></ul>	May 2018 - Present

AWARDS AND RECOGNITIONS	
<b>Smart India Hackathon National Winner   Government of India</b> <ul style="list-style-type: none"><li>Developed an Intelligent Transformer Management System using predictive maintenance via a web portal for control centers and a mobile application for ground technicians</li></ul>	Feb 2019
<b>CodeFunDo++ College Winner   Microsoft</b> Developed a mobile application to help people during natural disasters by, <ul style="list-style-type: none"><li>Finding a nearest safe location for them</li><li>Identify missing people and their families</li></ul>	Jan 2019
<b>Report Bug   OLX</b> <ul style="list-style-type: none"><li>User Account access was exposed via URLs based on sequential pattern generated while messaging users on OLX</li></ul>	Aug 2016
<b>Kishore Vaigyanik Protsahan Yojana (KVPY)   DST, Government of India</b>	Apr 2016
<b>National Talent Search Examination (NTSE)   NCERT</b>	Apr 2014