

# MIHIR BANSAL

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GitHub: <https://github.com/mihir86>

## EDUCATION

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<b>BITS Pilani, Hyderabad Campus</b>	2018 - 2022
<i>Bachelor of Engineering in Computer Science, Minor in Data Science</i>	<i>CGPA: 9.23</i>
<b>St. John's High School, Chandigarh</b>	2017 - 2018
<i>Class XII, Central Board of Secondary Education</i>	<i>93.8 %</i>

## TECHNICAL SKILLS

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<b>Programming Languages</b>	C++, Python, C, Java, C#, SQL*Plus, Shell Scripting
<b>Tools &amp; Frameworks</b>	Keras, Tensorflow, OpenFace, NLTK, Gensim, Android Studio, Firebase

## WORK EXPERIENCE

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<b>Microsoft</b>	Hyderabad, India
<i>Software Engineer Intern</i>	<i>May 2021 - July 2021</i>
<ul style="list-style-type: none"><li>• Worked in the MSAI (Microsoft Search, Assistant &amp; Intelligence) Team to improve the relevance of Natural Language queries on Outlook Search.</li><li>• Performed REST API calls to identify group participants in user's meetings on Outlook and performed different levels of optimization, which improved the overall performance of the Outlook Calendar Answering API.</li></ul>	
<b>Central Electronics Engineering Research Institute (CEERI)</b>	Pilani, India
<i>Research Intern</i>	<i>May 2020 - July 2020</i>
<ul style="list-style-type: none"><li>• Performed Time Series analysis by implementing Deep Learning models like LSTM, ARIMA and SVR Regression models in Python to predict the concentration of air pollutant PM 2.5, by using the hourly Meteorological and air pollution data of Delhi-NCR region.</li><li>• Analyzed the changes in concentration of pollutant PM 2.5 in Delhi due to lockdown by comparing the predicted and actual concentration of PM 2.5 for a time period of 6 months.</li></ul>	

## SELECTED PROJECTS

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<b>Sentiment Analysis for Software Engineering</b>	<i>Jan 2021 - May 2021</i>
<ul style="list-style-type: none"><li>• Analysed the sentiment of users from bug reports and application reviews from JIRA, StackOverflow and App-Reviews dataset by implementing different NLP techniques for analysing the text data and achieved a classification accuracy of 99% with the Machine Learning model.</li></ul>	
<b>Effectiveness of Meta-Heuristic Algorithms in Data Clustering</b>	<i>Aug 2020 - May 2021</i>
<ul style="list-style-type: none"><li>• Implemented the Cuckoo Search Optimization Algorithm for tuning the hyper-parameter, which is used to classify the events that influence the evolution of communities in a temporal Social Network mined from the DBLP dataset. [Research paper under review]</li></ul>	
<b>Human Emotion Detection</b>	<i>Sept 2020 - Nov 2020</i>
<ul style="list-style-type: none"><li>• Implemented a Genetic Algorithm to detect the human expression 'sadness' by using different human facial expression images extracted through the OpenFace toolkit to select the best subset of features to detect human emotions by using different Machine Learning techniques.</li></ul>	

### **Student's Union Android Application**

*Sep 2019 - May 2020*

- Developed an Android application using the Firebase database server, which has features to schedule Student-Professor meetings, a Laundry Management System and Cab sharing facilities.

### **A Cab Booking Application in Java With Swing**

*Oct 2019 - Nov 2019*

- Developed a user-friendly GUI application with an Object Oriented Design for booking cabs using Java's Swing with MySQL backend.

## **POSITION OF RESPONSIBILITY**

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### **Teaching Assistant**

BITS Pilani

*Object Oriented Programming*

*Jan 2021 - May 2021*

- Assisted in OOP lab sessions and conducted doubt sessions for students.

## **ACHIEVEMENTS**

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### **Institute Merit Scholarship**

BITS Pilani

*Awarded for academic excellence in Semester I,II,III,IV,V (Top 2% in the batch)*

## **RELEVANT COURSE WORK**

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Data Structures & Algorithms, Object Oriented Programming, Foundations of Data Science, Machine Learning, Artificial Intelligence, Data Mining, Applied Statistical Methods, Database Systems, Computer Networks, Operating Systems, Cryptography, Probability & Statistics

## **EXTRA CURRICULAR ACTIVITIES**

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Competitive Programming, Member of Student's Union Technical Team (Android App Development), Member of Movie Club (Video Editing Team), Pianist, Lawn Tennis player