# Manohar Koya

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## EDUCATION

### BML MUNJAL UNIVERSITY
B.Tech in Computer Science
Aug 2017 - 2021 | Gurgano, India
School of Engineering and Technology
Bachelor of Technology
Cum. GPA: 8.21 / 10.0
Major GPA: 8.85 / 10.0

### SRI CHAITANYA JR. COLLEGE
+12. May 2017 | Hyderabad, India

## LINKS

Github:// **Manohar Koya**
LinkedIn:// **Manohar Koya**
Codechef:// **manohar9669**
Codeforces:// **ManoharKoya**

## COURSEWORK

### UNDERGRADUATE
Object Oriented Programming + Java
Database Management Systems
Data Structures and Algorithms
Design and Analysis of Algorithms
*(Club Teaching Asst. for Juniors)*
Operating Systems
Theory of Computation
Computer Networks
Computer Organisation and Architecture
Information Retrieval
Cryptography
Artificial Intelligence
Machine Learning
Software Engineering
Compiler Design

## SKILLS

### PROGRAMMING
Experienced :
C++ • C • Python • Android • Java
**over 1000 lines** :
CSS • HTML • Batch
Familiar:
Shell • Flutter • JavaScript

## HOBBIES

• Competitive Programming
• Ping Pong ( *Beginner* )

## EXPERIENCE

### CYBERAEGIS | Android Developer Intern
May 2019 – July 2019 | Hyderabad, India
- Developed Front-end for Android application of Cyberaegis institute.
- Led a team of 5 fellow android developers in project involved.
- Front-End developer - Wrote and reviewed code in Java, Styled the complete application interface.

## PROJECTS

### AUTO-PATH | Snake game Automation
Apr 2020 – May 2020 | Machine Learning
- Learnt and Implemented Genetic Algorithm for a population size of 1000 over 50 generations.
- Feed forward Artificial Neural Network is used as snake brain.
- Applied 4 combinations of Crossover-Mutation Methods for Statistical analysis of Genetic Algorithm.
- Observed a 25.6% score advantage with respect to time and 43.4% time advantage with respect to constant score while using Weight-Neuron as Crossover-Mutation pair.

### ANTON | Tweet Trent Analyzer
Dec 2019 | Information Retrieval
- Twitter Bot for Trend analysis, Topic suggestion, Hashtag Trend locator.
- Implemented on call/tag identification, trend analysis based on rate of increase in likes and retweets wrt time using Twitter python api.
- Acquired 78% accuracy on subject identification with hashtag matching.

### DRONE-PATH | Drone Scheduling Algorithm
Feb 2020 | Algorithm Development
- Developed 2 Drone Scheduling Algorithms for an NP-Hard problem.
- Idea implementation of Greedy & Clustering based Algorithms based on Fuel locations along with ANN for algorithm selection.
- Initial $10^6$ tests were performed on both algorithms while simultaneously training the ANN. Rest were done on ANN output.
- Observed an 89% accuracy on algorithm selection (ANN).

### STEGANOGRAPHY | Research Review
May 2020 | Cryptography
- Studied Least significant bit & Jsteg Steganographies.
- Implemented LSB with last 2 bits of pixels & Jsteg with last 1 bit of Cosine coefficients for each 8X8 blocks of the image.
- Compared ease of visual attack over LSB images in both methods. Analyzed and reviewed histogram drawbacks and cover-up methods in naive Jsteg Steganography.

## AWARDS

| Year | Result | Award |
|------|--------|-------|
| 2020 | Nationals | Smart India Hackathon (SIH-2020) National Finalist. |
| 2020 | 2nd/40 | Intra-Campus Hackathon, BMU |
| 2017 | 75% | Scholarship awarded for B.Tech in BMU |