Rochan Avlur Venkat

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EDUCATION

Mahindra Ecole Centrale

Bachelor of Engineering in Computer Science; GPA: 3.65 (9.13/10.0)

Hyderabad, India Aug. 2017 - May, 2018

AECS Maaruti Magnolia Pre University College

High School; GPA: 3.20 (8.0/10.0)

Bangalore, India Jun. 2015 - March. 2017

Delhi Public School - East

High School; GPA: 3.9 (9.8/10.0)

Bangalore, India

SCHOLASTIC ACHIEVEMENTS

Computer Science Department, Freshman Year

Top 10 in a class of 60 students

Hyderabad, India May 2018

SAT Test score Bangalore, India

SAT: 1350/1600; Subject SAT: 2320/2400 (Physics: 770, Math: 800, Chemistry: 750)

Nov 2016

Jun. 2015

Relevant Courses

• Sophomore:

- Data Structures Sorting & Searching Algorithms, Hashing, Trees, Graphs
- o Discrete Mathematics Sets, Functions and Relations, Counting, Advance Counting Techniques, Graphs
- Mathematics Probability, Random Processes & Statistics

• Freshman:

- o Computer Fundamentals & Programming C & Python Programming Language
- o Mathematics Linear Algebra, Calculus

EXPERIENCE

Mahindra Ecole Centrale

Hyderabad, India Dec. 2018 - Current

Sophomore

o [Ongoing] Deep Reinforcement Learning & Transfer Learning Research - Individual under guidance: Conducting research on compositionality and causality in Deep Reinforcement Learning, specifically targeting transfer learning problems under the guidance of Prof. Achal Agarwal

Mahindra Ecole Centrale

Hyderabad, India

Freshman

Aug. 2017 - May, 2018

- o sptm Individual: Developed and published a python package on PYPI called sptm (Sentence Prediction using Topic Modeling), Experimented and tested various Topic Modeling algorithms (LDA, LSA, NMF & TFIDF) and other vector models such as lda2vec, doc2vec and word2vec, Worked under Anupam Mediratta as a summer intern
 - * Language: Python
 - * Libraries: sklearn, gensim, MALLET, lda2vec, tensorflow, spacy, nltk, Numpy, matplotlib
- o CineLog Team(2): Developing an Intelligent and Adaptive Framework to enable Multiplexes predict opening day sales of a movie & optimize schedule to maximize profits both real-time and in near-future; designed and developed LSTM Networks, Sentiment Analysis and core RNN
 - * Language: Python, golang
 - * Libraries: Tensorflow, Pandas, Numpy, matplotlib, sklearn, lstmpredictor, imdbpie, googleapiclient, request, python-twitter
- Harmonize Team(3): Developed a Proof of Concept of a decentralized blockchain based Music Publishing & Sharing Platform; designed and developed core blockchain and back-end services
 - * Language: golang

- * Libraries: aws-sdk-go, websocket
- o **oWatcher Individual**: Developed a Discord bot to display detailed in-game performance statistics of a players in Overwatch by Blizzard Entertainment
 - * Language: NodeJS
 - * Libraries: discord.io, winston, OWAPI

AECS Maaruti Magnolia Pre University College

High School Student

Jun. 2015 - March. 2017

Bangalore, India

- o Research in Video Compression Algorithms Team(2): Worked alongside Prof. Chandrashekar Vaidhyanathan, Contributions included to algorithm design, implementation and testing; Involved a lossless compression scheme that can be extended to both Near-Lossless and Lossy compression
 - * Language: C, R, Python
 - * Libraries: ffmpeg, Libtiff, bnlearn, gRain

Delhi Public School - East

Bangalore, India

Jun. 2013 - March. 2015

Middle School Student

- o A Sensor Based System to effectively track Geriatric Care and Dementia patients: Was responsible in developing the full stack solution, including micro-controller programming, Android application development and back-end services
 - * Languages: Python, Java, Processing, MySQL
 - * Libraries: NA

AWARDS & ACHIEVEMENTS

- 2018 Pragyan Hackathon, Bangalore, India Special Mention: Showcased an Adaptive Movie Scheduling Framework for Multiplexes using RNN's, LSTM, Sentiment Analysis and Machine Learning
- 2017 Brave Hackathon, Hyderabad, India First Place: Showcased a Decentralized Music Publishing and Sharing Platform built over 24 Hours
- 2017 Intel International Science and Engineering Fair (ISEF), Los Angeles, United States Finalist: Showcased a research project titled - A Lossless Video Compression Technique Using Baysian Networks and Entropy
- 2017 Intel Initiative for Research and Innovation in Science (IRIS), Pune, India Grand Award Winner, Finalist: Showcased a research project titled - A Lossless Video Compression Technique Using Baysian Networks and Entropy Coding
- 2015 Intel Initiative for Research and Innovation in Science (IRIS), Bangalore, India Finalist: Showcased a research project on am Efficient Thermoeletric Refrigeration System
- 2014 Open European Championship FIRST Lego League, Mannheim, Germany Most Innovative Solution: Showcased a research project on the Utilization of T2 Bacteriophages to fight Food Contamination
- 2013 FIRST Lego League (FLL), Regionals, Bangalore, India Best Robot Design: Showcased a robot design that was highly efficient while still remaining simplistic
- 2012 Intel Initiative for Research and Innovation in Science (IRIS), Chandigarh, India Finalist: Showcased a solar cooker design that was inspired from the Parabolic and Box type designs

Technical Skills

- Languages: Python, C, R, C++, Golang
- Libraries: libtiff, ffmpeg, ImageMagik, gensim, MALLET, TensorFlow, sklearn
- Platforms: AWS, GCP, Linux(x86, x86-64), Raspberry Pi, Arduino

Positions of Responsibility

•	Vice President Enigma, The Computer Science Club at Mahindra Ecole Centrale	Hyderabad, India May 2018
•	$\begin{array}{c} \textbf{Student Member} \\ ACM \ \& \ IEEE \ Student \ Member \end{array}$	Intl. Since 2018
•	Member Sigma Xi Member	Intl. Since 2017
•	Organizing Committee Member Centrale Connect Conclave	Hyderabad, India 2018
Conferences, Seminars & Workshops		
•	International Conference on Machine Learning and Data Science Attended two day conference held at Mahindra Ecole Centrale	Hyderabad, India Dec 2018
•	MECHacks Hackathon Organized a 36 hour Hackathon as a part of Aether, the annual fest at Mahindra Ecole Centrale	Hyderabad, India November 2018
•	Generative Art Workshop Conducted an introductory session on Generative Art as a part of the Computer Sci. Club	Hyderabad, India November 2018
•	Photo-Realistic Rendering Workshop Conducted a session on Photo-Realistic Rendering as a part of the Computer Sci. Club	Hyderabad, India November 2018
•	Mozilla Hackathon Organized a 36 hour Hackathon	Hyderabad, India October 2018
•	Python Workshop Conducted a Python Workshop for fresher (First Year) as part of the Computer Sci. Club	Hyderabad, India September 2018
Extra-Curricular Activities		

Swimming

Bangalore & Hyderabad, India

- o 2017 Current: Member of the Mahindra Ecole Centrale College Swimming Team, represent the college at Inter-College Meets
- o 2015: Participated in the FINIS State level Sub Junior/Junior Championship event Freestyle, Butterfly & Individual Medley events
- o 2012-15: Represented Delhi Public School Bangalore East School Swim Team in a number of inter-school swimming competitions. Secured additional credits in CBSE Board

Bangalore, India Running

o 2015: 1st Place in the 5 km 'Spirit of Wipro' marathon run (Open non-employee category); Timing: 21 mins

Music Bangalore, India

o 2005-10: Learnt playing Tabla (Indian percussion instrument). Cleared the Aadhya, Madya, Purna, 1st year and 2nd year exams conducted by 'Bangiya Sangeet Parishad', Rabindra Bharati University, Kolkata