Ravali Kommuri

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Education

New Mexico Institute of Mining & Technology (Graduated Jan 2019**)**
Masters in Computer Science

- Relevant Coursework: AI, Data Science, Machine Learning, Algorithms, Data Structures, Software Engineering, UI & UX, Computer Architecture, Probability & Statistics, Natural Language Processing

Professional Experience

New Mexico Tech - IT Center, Software Engineer, Feb 2019 - Present
I was hired by NMT to spearhead the development, deployment, and maintenance of the new banner system. My work consisted of analysing system requirements , developing the software models to improve the performance, and being responsible for back-end support and API builds whenever necessary.

National Radio Astronomy Observatory, AI Intern, Aug - Dec 2018
I worked on the Image auto-classification machine, which would intelligently classify the incoming telescopic images using Machine learning algorithms and Convolutional Neural Nets. I spent 3 months developing the software for the platform, which would allow the data receiving node to apply principal component analysis and scale variance on the image, and immediately retrieve a full feature report and class of the image.

New Mexico Institute of Mining & Tech, Graduate Teaching Assistant, Aug 2017 - May 2018
I worked as a Teaching assistant for the Computer Architecture course for a year, assisting the Professor, tutoring, leading project discussions and conducting lab sessions.

New Mexico Institute of Mining & Tech, Research Assistant, Aug 2016- May 2018
I worked on building AI models for wireless sensor network data, which would intelligently detect the Forest Fire and the associated events including malfunctioning of the deployed sensors. I spent time on imitating the forest fire and collecting the appropriate sensor data under supervisor's observation. After Data preparation, I used various ML libraries to get the optimal results without any bias or data under fitting or over fitting problems.

Personal Projects

Movie Recommendation Software
I created a user interface Movie Recommendation Software using Python UI/UX and Machine learning libraries. With a team of 4 members, I have made an effort to develop this project as a downloadable mobile application.
website for Graduate Student Association
While working as an Information Office at the Student Association, I got to design and develop an interactive website with a chatbot made with NLP models so that the website can understand and answer the Graduate student queries 24 X 7.
Facial Expression Recognition
I made an attempt to distinguish between the human facial expression which is a challenging project to start with as we can get a minimum number of attribute data for the human face and will throw an overfitting at every step. Considering the psychology principles of human behaviour helped me to study the blank facial expressions in detail.
Forest fire Outliers detection
I tried to use the AI for the very famous forest fire detection project by deploying a wireless sensor network and collecting the time series data by forming a mesh network between the sensor nodes. To make it more useful I have added a classification model for the various events that take place before the start of forest fire like Lightning and thunder scenarios which may be the root cause of the forest fire.