Vedant Dave

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Education

Columbia University *New York, NY*

M.S. in Electrical Engineering (Concentration : Data Driven Analysis and Computation) *Aug 2019 - Dec 2020*

- Courses: Neural Networks, Deep Learning, Big Data Analytics, Content Storage & Distribution, Machine Learning, Databases
- GPA : 4.0, 2020 Spring MS EE Honors Student

Institute of Technology, Nirma University *Ahmedabad, IN*

B.Tech in Electrical Engineering *Jul 2015 - May 2019*

- Rank: 15/150

Experience

Research : Edge computing and IoT with NVIDIA Jetson Nano *Columbia University, NY*

Keywords: Edge Computing, tiny YOLO, RTSP, Object detection *May 2019 - Aug 2020*

- Building a setup/configuration of a portable remote camera system and a small, powerful computer in the form of NVIDIA Jetson Nano which could be setup in people's windows to provide video stream data to the COSMOS system by leveraging NVIDIA deepstream, deploying tiny YOLO for object detection and connecting the entire system to the COSMOS server using RTSP connection
- This product being portable would challenges the boundaries of object detection at those places where a formal setup is not possible, thereby increasing its demand in the market.

Hitachi Hi-Rel Power Electronics Ltd. *Gandhinagar, IN*

Intern - Power Electronics *Jun 2018 - Jul 2018*

- Debugged and rectified errors in broken electric panels of Uninterrupted power supply's (UPS's).
- Developed a statistical model which showcased the efficiency of different tests performed on the various power electronic machines and helped the methodology become more robust by increasing the efficiency by 6 percentage points, which increased the monthly production by 15 percentage.

Soni Energy Solution *Ahmedabad, IN*

Intern - Power Systems & Electrical Machines *Jun 2017 - Aug 2017*

- Gained hands-on experience about maintenance of various electrical machines by regular onsite visits.
- Analyzed various transmission parameters on SCADA and generated output reports of machine performance with optimized changes on weekly basis, thereby optimizing the testing methodology by 20 percentage points allowing the company to take on more orders.

Projects & Products

Paper-bot : Spotify for research papers *Stand alone project, NY*

Keywords: Arxiv API, Google Scholar, Recommendation engine *May 2020 - June 2020*

- Built an app which would act in a similar way as Spotify for music.
- A user can search papers based on authors, categories, titles and the app also recommends (recommendation engine) relevant papers based on users interest.
- This app is user-friendly and a novel thing about this app is that, it is linked to the Google Scholar account of the author so the user can also fetch all the information about a particular author from the Google Scholar by just one click.

Model to Evaluate the correlation of Streamed Sentiments with Cryptocurrencies *Columbia University, NY*

Keywords: Cryptocurrency, LSTM, Tweets, Subreddits, Sentiment Analysis, RMSE *Jan 2020 - Apr 2020*

- Evaluated the correlation between price of cryptocurrencies based on sentiment score of tweets, the number of followers of the user, the number of retweets and the number of likes, different subreddits related to cryptocurrencies and the google news trends related to cryptocurrencies , collected over a period of 30 days, on an hourly basis.
- Received a Root Mean Square Error(RMSE) of 15 dollars after employing LSTM (Long Short Term Memory), which states that the prediction was off to the true value by 15 dollars, which is considered decent looking at the price of Bitcoin/Ethereum in recent times.
- Accumulated sentiment score from different online platforms and built a predictive model with a RMSE of 16 dollars, thereby concluding that sentiment has an impact on the cryptocurrency price prediction.

Skills

Data analysis skills Spark, Jupyter, TensorFlow, Keras, NVIDIA DeepStream SDK

Technical skills Python, MATLAB, MySQL, JavaScript, Neo4j, Arduino, Raspberry Pi

Applications Microsoft Office, Arduino IDE, Google Cloud Platform, AWS, NVIDIA Jetson Nano IDE