Udit Ennam

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EDUCATION

Rutgers University, New Brunswick **Master of Science in Data Science** **2017-2019**
Courses: Data Structures and Algorithms, Probability and Statistics for Data Science, Massive Data Storage and Retrieval Tools
GITAM University, Visakhapatnam **Bachelor of Technology in Electronics and Communication Engineering** **2012-2016**
Secured a GPA of 8.4/10 {Top 5% from the department}

TECHNICAL SKILLS

- Python, R, SQL, C++, C#, HTML, CSS, JavaScript, jQuery, Bootstrap, .NET, MATLAB, Tableau, PySpark, Excel, Visual Studio, Ubuntu

PROFESSIONAL WORK EXPERIENCE

21CC Recruitment and Training Private Limited, Mumbai **September 2016-March 2017**
Freelance Content Developer

- Created a storyboard using MS PowerPoint and developed an e-learning module on 'Processes in Logistics' with Adobe Captivate 9.
- Developed mini assessment tests after each section to check the progress of the learner and 1 final quiz, set an internal server as the reporting server and the quiz score was published through Adobe Captivate Quiz Results Analyzer.
- Created **online training courses** on warehouse operations for the **Government of India's campaign Skill India**, aimed at increasing the skilled workers in the warehouses and youth employment.

HopInTown, Mumbai **July 2016-March 2017**
Web and Database Development Intern

- Collected leads through the **Agile Customer Relationship Management** using entry popups made with Wishpond and designed referral website through ReferralCandy for attracting more customers with free coupons and discounts.
- Headed a team of 4 to build the mobile website of the company. **http://m.hopintown.com**
- Analysed tweets to understand the people's opinion about the company through Twitter Search API for #hopintown and #hit for tailoring offers and services provided to the customers.
- Increased the user base by about 30% within my tenure of 8 months with the company.
- **Technologies used:** HTML, CSS, Javascript, jQuery, C#, .NET

National Small Scale Industries Corporation Limited, Hyderabad **May 2015-June 2015**
Intern

- Developed a secured **bank authentication system** using MATLAB by using 2 out of 2 scheme for which the input image was the account holder's signature, then scanned and overlapped the image present in the bank database with the printed share of the customer and checked the correlation coefficient to be high for authentication to succeed.

PROJECTS

Identification of genes with enhanced and suppressed activities (R)

- Loaded the ISLR package into R and built a False Discovery Rate program using the **Benjamini Hochberg procedure** for the NCI60 database.
- Calculated T-statistic for hypothesis testing for each gene. https://goo.gl/b44H7x
- Tuned FDR to get the top 50-100 interesting genes and then used FDR to identify them for enhanced and suppressed activity.
- Used ggplot and UpSetR packages for visualizations.
- Part of my Probability and Statistics Course Project at Rutgers and scored 100% marks for it.

Abstractive Title Generator (Python)

- Used Kaggle "All-the-news" corpus as our dataset which contained about 142,000 articles with title and content.
- Extracted only the first 25 sentences of the news article and tokenized each of the news article and its title using the NLTK package and converted the tokenized title and content as a tuple and stored it in a pickle format.
- Mapped words to a vector of real numbers using GloVe with a vocabulary size of 20,000 and dumped the embedding matrix to a pickle file and used **Keras package** to implement neural networks.
- Implemented RMSprop as optimizer and L2 regularizer and trained the model with 100 iterations and 16 epochs.

Core decomposition of a large network (Python)

- Loaded the can_citations.txt containing about 2.1 million rows from CiteSeer website for forming the nodes of the graph with each row symbolizing a connection.
- Cleaned the data by removing null and redundant rows and created a dictionary with the nodes.
- Evaluated the degree of each node and used the priority queue abstract data type to find out the number of cores for each node in the graph. https://goo.gl/GzFg1p
- Visualized the graph using the Python graph-tool.

Image Encryption Then Compression System (MATLAB)

- Part of my Undergraduate Final Year Project.
- Encrypted and compressed the image to be transferred simultaneously to improve security by implementing prediction error clustering for image decryption and used arithmetic coding for image compression and decompression.
- Checked the accuracy of the pre-encrypted and post-decrypted images through peak signal to noise ratio.
- Created an application using the MATLAB GUIDE to demonstrate the project from transmitter to receiver.

Other Projects: Testing the goodness of fit using parametric bootstrap in R, Prediction of housing prices in Python.