Suryateja B.V.

Senior Undergraduate, IIT Kanpur

home.iitk.ac.in/~suryab/
teja.surya59@gmail.com
(+91)-7318015935

EDUCATION

BTech, Electrical Engineering
Minor, Machine Learning
IIT Kanpur, 2020 (expected)
CPI : **9.52** / 10 (after 7 semesters)

Telangana Board - Class XII
Sri Chaitanya Junior College, Hyderabad, 2016
Percentage : 98.6%

CBSE - Class X
Vidyaniketan Public School, Bengaluru, 2014
CPI : 10 / 10

WORK EXPERIENCE

Research Intern, *Adobe Research, Bengaluru*
Supervised by Balaji Vasan and Gaurav Verma; May 2019 - July 2019

- Designed an end-to-end assistive application that generates coordinated image-text fragments from an input article to satisfy target user needs
- Used recent deep learning models such as WGAN-GP, VSEPP, DenseCap, FastPhotoStyle, etc. to aid in causal modeling of perceptual attributes and need-based retrieval of relevant fragments
- Full paper accepted at ACM IUI'20
- Received a Pre-Placement Offer from the Research Team

Research Intern, *University of Texas at Dallas (remote)*
Supervised by Prof. Vibhav Gogate; May 2018 - July 2018

- Learned chow-liu features as a prior network on NLTCS dataset by computing mutual information weighted graph and constructing a maximal spanning tree
- Used soft parameter tying to bias structure towards sparsity

PROJECTS

Advances in Recommender Systems, *Course Project*
Supervised by Prof. Piyush Rai; Jan 2019 - April 2019; Presentation

- Modeled user-exposure and incorporated item-item co-occurrence matrix to learn robust embeddings
- Explored ways to tackle cold-start and incorporate fairness using constrained multi-arm bandits

Explainable Machine Learning, *Course Project*
Supervised by Prof. Piyush Rai; July 2018 - Nov 2018; Presentation

- Create neuron groups using non-negative matrix factorization to visualize InceptionV2 features
- Compared the features of original and adversarial images generated using L∞-BFGS method

Stock Market Prediction, *Credit Suisse ML Hackathon*
Supervised by Prof. Sandeep Shukla; May 2018 - June 2018; Presentation

- Feature engineered historical stock data listed in NSE and implemented time-series LSTM in Keras to predict top 50 performing stocks of the next day
- Part of a three-member team that secured **third place** in National Finals among top 15 teams

SongTrain, *code.fun.do Hackathon, Microsoft*
Mar 2017 - May 2017; Demo Video

- Developed a Django-based web application that generates karaoke of uploaded songs and assesses the user's singing abilities by plotting and comparing realtime frequency graphs
- Part of a three-member team that secured **first place** in National Finals among 37 teams from top 15 IITs

ACADEMICS

Teaching Assistant
CS202: Mathematical Logic
CS203: Probability; 2020-current

Academic Excellence Award
Among 850 students; 2016-18

AIR 2369, JEE Advanced 2016
Among 1.5 lakh students; June 2016

AIR 166, JEE Mains 2016
Among 15 lakh students; May 2016

SKILLS

C, C++, Python, JavaScript, Keras, Django, Shell Utilities, R, Git

VOLUNTEERING

Member, Core Team Guidance
Counselling Service; 2018-19

Secretary
Programming Club; 2017-18

Academic Mentor (Maths)
Counselling Service; 2017-18

OTHER PROJECTS

Time-series Clustering, Code and Report
Implemented the mixture of ARMA model in Python and selected parameters using BIC

Pulse Oximetry, Presentation
Build a heart rate monitor using Arduino Nan

Exoplanet Detection, Code and Report
Detecting exoplanet containing stars in highly imbalanced Kepler Light Curve data

Technical Dialog Chatbot, Demo Video
A retrieval-based, short conversation, closed domain chatbot using Dual Encoder LSTM network