Mayank Saxena

Personal Data

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Research and Work Experience

Aug '17 - Present

IBM India Research Laboratory, New Delhi, India
Research Intern
Collected video data of trailers of all Bollywood Movies released between 2008-2017 and analyzed existence of gender stereotyping in them. The work was published on several leading websites. Worked under the guidance of Dr. Sameep Mehta and Nishtha Madaan.

June - Sep '17

Carnegie Mellon University Robotics Institute, Pittsburgh PA
Robotics Institute Summer Scholar
Developed a real time model for prediction of behavior actions in RoboTutor using affective state estimation. RoboTutor is a finalist for the 15M $ Global Learning XPrize Competition. Worked under the supervision of Dr. Jack Mostow.

Aug - Dec '16

Delhi Technological University, New Delhi, India
Research Project
Detecting Influential Nodes in a Graph: Implemented my own algorithm - Extended Neighbourhood Coreness Centrality. Results were comparable and better in some cases to Pagerank, Degree centrality and k-core centrality algorithms. Worked under the guidance of Rakhi Saxena and S. Sivaprasad Kumar.

Dec - March '16

Cube26, New Delhi, India
Software Developer Intern
Developed widget for frequent contacts as part of stock Android application for Karbonn smart phones. All code was reviewed and pushed for production. Developed another application and widget for finding out balance for prepaid connections. These applications are currently being used by more than 1M users.

Summer '15

IBM India Research Laboratory, New Delhi, India
Summer Intern
Developed application called as "Human or Bot". Implemented sentiment analysis of tweets along with analysis of timestamps and of followers/following list of user to classify a Twitter User as a Human or a Bot. Achieved accuracy of over 75% in model.

Education

2014 - 2018	**Delhi Technological University (Formerly DCE)**, New Delhi Bachelors of Technology in MATHEMATICS AND COMPUTING, GPA: 7.75/10
2012 - 2014	**The Mother's International School**, New Delhi CBSE, Class XII (Physics, Chemistry, Mathematics, Computer Science, English) Percentage: 95%
2002 - 2012	**The Mother's International School**, New Delhi CBSE, Class X (Science, Mathematics, English) GPA: 9.4

Additional Coursework and Certificates

MAY '16	Machine Learning (Stanford University) - Coursera
JULY '17	Educational Data Mining Track at Learn Lab Summer School - CMU, Pittsburgh PA
PRESENT	Deep Learning Specialization (deeplearning.ai) - Coursera

Technical Skills

Programming Languages:	PYTHON, C, C++, MATLAB, JAVA, JAVASCRIPT, R, MYSQL, LATEX
Frameworks:	DJANGO, FLASK, TENSORFLOW, OPENCV, ANDROID SDK, PANDAS
Operating Systems:	LINUX, UNIX, WINDOWS

Awards

AIRVOLUTION 2017	Shortlisted for on site finals in Kuala Lumpur, Malaysia, as one of 20 teams all over the world. Organized by Air Asia.
TECHNOVISION 2017	Recieved best research presentation award for research on Prediction of Like Count of YouTube video amongst 20+ presentations.
MHACKS 8	Shortlisted as one of top 5 Indian Teams and participated in international hackathon conducted in Detroit by University of Michigan.
DIH 2016	Finished third amongst 9000 entries in Digital India Hackathon. Developed a Facebook Messenger Bot : Rescue Bot -India.
HACKNSIT 2016	Developed 'Foodify' and won 2nd Runners up prize.
HACKIIITD 2015	Invited by Mr. Kapil Mishra (Cabinet Minister of Delhi Government) to showcase project.

Accepted Publications

- **M. Saxena**, R. Pillai, J. Mostow, 'Relating Children's Automatically Detected Facial Expressions to their Behavior in RoboTutor', *AAAI 2018*

- N. Madaan, S. Mehta, , **M. Saxena**, A. Aggarwal, T. S Agrawaal, V. Malhotra, 'Analyzing Gender Stereotyping in Bollywood Movies', *FAT* 2018*

- N. Madaan, S. Mehta, **M. Saxena**, A. Aggarwal, T. S Agrawaal, V. Malhotra, 'Bollywood Movie Corpus for Text, Images and Videos', *ArXiv*

- **M. Saxena**, R. Pillai, J. Mostow, 'Behavior Action Prediction using Affective State Estimation in RoboTutor', *CMU RI Summer Scholars Poster Session, 2017*
- **M. Saxena** 'Predicting Like Count of YouTube Video', *FTC 2017, Vancouver, Canada*

PROJECTS

YOUTUBE LIKE COUNT PREDICTOR:
Developed a Stochastic Gradient Descent Model to predict the like count of a given YouTube video. Collection and cleaning of data, feature engineering, modelling and visualization of the data were some of the tasks I accomplished in this project.

OFFLOW:
Making data sharing possible through mobile devices without WiFi or mobile network using ultrasound waves. Developed under 36 hours at MHacks 8.

GAANABOT:
GaanaBot is a bot for Telegram. It makes downloading songs as easy as ever. Sends song to user on request. Used by 500+ Telegram users.

FOODIFY:
Android app processes image of a food item, retrieves nutritional content, tracks nutritional content and also suggests recipes based on daily calorie limit goal.

OUTREACH

Have been features on multiple leading websites, links below:

- **Neutralizing Gender Bias** - https://qz.com/1102088/ibm-is-using-bollywood-movies-to-identify-and-neutralize-gender-bias/
- **Times of India** - http://epaperbeta.timesofindia.com/index.aspx?eid=31808dt=20171029
- **Ten** - https://play.google.com/store/apps/details?id=com.mayanksaxena.mayank.ten
- **Lazygit** -https://www.producthunt.com/posts/lazygit
- **Reddit & HN** - https://www.producthunt.com/posts/reddit-and-hackernews-panel-indicators
- **Offlow** - https://devpost.com/software/offlow

INTERESTS AND ACTIVITIES

- Open Source contributor to Coala (A unified command-line interface for linting and fixing code) and Algorithm Visualizer for Android.
- One of the leaders of the Delhi Technological University Open Source Software Development Society. Tutored juniors in Android Development, Chat Bot Development and Version Control.
- Given talks and conducted workshops during PyDelhi meetup events.
- Awarded Finanical Aid from Coursera to complete Deep Learning Specialization.
- Avid football fan.