Mayank Saxena

Personal Data

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Education

2018 - 2019   **Columbia University**, New York
Masters of Science in COMPUTER SCIENCE,

2014 - 2018   **Delhi Technological University (Formerly DCE)**, New Delhi
Bachelors of Technology in MATHEMATICS AND COMPUTING,
GPA: 8.1/10

2002 - 2014   **The Mother's International School**, New Delhi
CBSE, Class XII: 95%
CBSE, Class X: 9.4/10

Research and Work Experience

SEP '17 - JAN '18 | *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 - AUG '17 | *Carnegie Mellon University Robotics Institute, Pittsburgh PA*
Robotics Institute Summer Scholar
Developed a real time prediction model for 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 credit balance for prepaid connections. These applications are currently being used by more than 1M users.

Additional Coursework and Certificates

May '16	Machine Learning (Stanford University) - Coursera
July '17	Educational Data Mining Track at Learn Lab - CMU, Pittsburgh PA
March '18	Deep Learning Specialization (deeplearning.ai) - Coursera
June '18	Machine Learning Crash Course by Google Developers

Accepted Publications

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

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

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

[4] **M. Saxena**, R. Pillai, J. Mostow, 'Student Behavior Analysis using Affective State Estimation in RoboTutor', *CMU RI Summer Scholars Journal, 2017*

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	Received best research presentation award for research on Prediction of Like Count of YouTube video amongst 20+ presentations.
MHacks 8	Shortlisted as one of the top 5 Indian Teams. Participated in an international hackathon organized in Detroit by the University of Michigan.
DIH 2016	Finished third amongst 9000 entries in Digital India Hackathon. Developed a Facebook Messenger Bot : Rescue Bot -India.

Technical Skills

Programming Languages:	Python, C, C++, matlab, Java, Javascript, R, MySQL, LaTeX
Frameworks:	TensorFlow, Keras, OpenCV, Pandas, Flask, Android SDK
Operating Systems:	Linux, Unix, Windows

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.

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