

Mayank Saxena

<http://mayank26saxena.github.io/>

Email : mayank.saxena@columbia.edu

Mobile : (929) 330-4012

EDUCATION

- **Columbia University** New York, NY
Master of Science in Computer Science (Machine Learning Concentration) *Aug. 2018 – Dec. 2019*
- **Delhi Technological University (Formerly DCE)** New Delhi, India
Bachelor of Technology in Mathematics and Computer Science; GPA: 3.55 (8.1/10.0) *Aug. 2014 – May. 2018*

EXPERIENCE

- **IBM India Research Laboratory** New Delhi, India
Research Intern *September 2017 - January 2018*
 - **Gender Bias Detection and Analysis:** 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 and newspapers.
 - **Public Dataset:** Developed a public dataset for detecting and removing gender bias from text.
- **Carnegie Mellon University** Pittsburgh, PA
Research Intern - Robotics Institute Summer Scholar *June 2017 - August 2017*
 - **Prediction Model:** Developed a real time prediction model for behavior action in RoboTutor (an Intelligent Tutor System) using affective state estimation and facial action units. RoboTutor is a 1M \$ finalist for the 15M \$ Global Learning XPrize Competition.
 - **Engagement Improvement:** Deployed the prediction model on the Android platform to run real time predictions and enhance user engagement and learning.
- **Cube26** New Delhi, India
Software Developer Intern *December 2015 - March 2016*
 - **Application:** Developed a widget for frequent contacts which was to be used as a stock application for Karbonn Android Phones. It is currently being used by more than a million people in India.
 - **Running Time:** Improved upon the previously being used algorithm by reducing the running time by nearly 10% by using hashmaps, background services and cache.

PUBLICATIONS

- **M. Saxena, R. Pillai, J. Mostow:** Relating Childrens 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:** Student Behavior Analysis using Affective State Estimation in RoboTutor, CMU Robotics Institute Summer Scholars Journal, 2017

PROJECTS

- **YouTube Like Count Predictor:** Developed a Stochastic Gradient Descent based Regression Model to predict the like count of a given YouTube video. Project involved collection and cleaning of data, feature engineering, modelling and visualization of the data.
- **Detecting Influential Nodes in a Graph:** Implemented my own algorithm - Extended Neighbourhood Coreness Centrality for influential node detection in graphs. The results obtained were comparable and better in some cases to Pagerank, Degree centrality and k-core centrality algorithms.
- **Offlow:** An application for data transfer between two Android devices using ultrasound waves. Authentication was accomplished using a time based OTP.
- **Foodify:** Developed an Android App which processes image of a food item, recognizes the item, retrieves its nutritional content and also suggests its recipe.

PROGRAMMING SKILLS

- **Languages:** Python, C++, C, Java, MATLAB, R **Frameworks:** TensorFlow, Keras, Pandas, Android SDK