

Namrata Mukhija

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Education

Courant School of Mathematical Sciences, New York University

M.S. COMPUTER SCIENCE

New York, USA

Starting Jan 2021

Starting as a **full-time student remotely** from India and available in India till September 2021.

Netaji Subhas Institute of Technology

B.E. INFORMATION TECHNOLOGY

Delhi, India

2014 - 2018

Percentage: 78.85%, CGPA: 8.635/10

Work Experience

Software Engineer II

MICROSOFT INDIA R&D

Noida, India

July 2018 - Dec 2020

- Successfully implemented a Distributed Data Structure to mitigate data inconsistency and data loss issues in Fluid Table. Developed Fluid Table de-serialization for enabling paste on Word, Excel, and PowerPoint apps.
- Implemented and shipped a re-architecture for PowerPoint Actions in the PowerPoint team with benefits of safe rollback and reliable undo support.
- Developed and shipped the [USD Performance Analyzer tool](#) and [USD 4.1](#) with Single Sign-On and caching features.
- **Awarded across 2500+ employees** in Experiences and Devices engineering group India - **E+D India Leadership Award** for generating energy in the team, demonstrating "All for One, One for All" mindset, and championing diversity and inclusion.

Natural Language Processing Research Collaborator

MIDAS LAB, INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY | ADVISOR: DR. RAJIV RATN SHAH | [CODE](#), [WEBSITE](#)

Delhi, India

September 2018 - February 2020

- Implemented topic segmentation and discourse analysis experiments to analyze the relationship between formality and virality of Reddit posts.
- Worked on abstractive text summarization. Implemented a LSTM-based encoder architecture for learning the representation of keywords extracted using the TextRank algorithm for news articles. Implemented an attention-based pointer-generator network to produce summaries.

Natural Language Processing Research Intern

ASPIRING MINDS | [CODE](#)

Gurgaon, India

Dec 2017 - Jan 2018

- Developed a BiLSTM model to automate grammar scoring on essays.
- Implemented augmented C&W word embeddings which would take into account the usage information of a word to treat grammatical errors as informative.
- This model replaced a third-party solution, and thereby, estimated a cost saving of around **\$12,000/year**.

Software-defined Networks Research Intern

INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY | ADVISOR: DR. VINAYAK NAIK

Delhi, India

Jun 2017 - Jul 2017

- Designed and implemented a centralised algorithm for load balancing in server farms.
- Developed using Mininet and Ryu controller REST APIs in Python.

Publications

- Chakraborty P.*, Arora U.*, **Mukhija N.** et al. (2019), OSAVA: An Android app to visualize and teach algorithms used in operating systems. JEET, [doi:10.16920/jeet/2019/v32i4/145517](https://doi.org/10.16920/jeet/2019/v32i4/145517)

Projects

Sarcasm Detection

NLP GROUP, NSIT | [CODE](#)

Delhi, India

Aug 2017 - Jan 2018

- Implemented sarcasm detection using lexical, pragmatic, lexical incongruity and context incongruity features. **f-score 0.75**.

Traffic Sign Classification

ADVISOR: DR. DEEPIKA KUKREJA | [CODE](#)

- Developed and trained a Convolutional Neural Network model on LISA Traffic Sign Dataset in Keras for classifying 47 different types of road signs. **Accuracy: 97.75%**.

OSAVA

ADVISOR: DR. PINAKI CHAKRABORTY | [CODE](#)

- A desktop/android app for visualizing various operating system algorithms - developed using Kivy framework and Python.

Leadership Experience

NLP Research Lead

NLP GROUP, NSIT

Delhi, India

Aug 2017 - Jan 2018

- Led a team of 2 undergraduates and implemented sarcasm detection achieving an f-score 0.75.

Core Team Member & NLP Speaker

WOMEN IN MACHINE LEARNING & DS, DELHI | [LINKEDIN](#)

India

Sep 2018 - Present

- Organized a national-level machine learning conference to connect women in ML with industry ML projects, speakers from IBM Research and TCS Research.
- Speaker at 'Deep Dive into NLP' on training encoder-decoder architectures and beam search decoding. Slides [here](#).

AI Ambassador

WOMEN IN AI | [WEBSITE](#)

India

Sep 2019 - Present

- Organized a virtual global-scale Summit which saw participation of 40+ countries, 160+ women speakers, and 4000+ attendees to encourage and facilitate women participation in AI field.
- Invited as a panelist by Swiss Embassy, Delhi to speak on Women in AI and technology in India and Switzerland.

Mentor

LEARN IT, GIRL!

Delhi, India

Oct 2017 - Dec 2017

- Mentored a student through the development of a Google Maps Chatbot developed using Python which she deployed on Facebook.
- She wrote a [blog](#) post with the implementation details.

Vice President

FINANCE & ECONOMICS SOCIETY OF NSIT

Delhi, India

Aug 2016 - Jul 2017

- Organized weekly meets and managed the society by initiating newer ways of spreading finance and economics awareness like SIGs and case study competitions.
- Led a team of 120+ students for organizing Consilium - The NSIT Business Conclave. Witnessing participation of 500+ students.

Director Community Services

ROTARACT REGENCY OF NSIT

Delhi, India

Aug 2016 - Jul 2017

- Co-organized shelter home visits, and orphanage meets contributing to NGOs Jaagriti and Masoom Duniya.

NSIT Developer Student Club Lead

GOOGLE DEVELOPER STUDENT CLUB, NSIT | [WEBSITE](#), [CODE](#)

Delhi, India

Jan 2018 - Jan 2019

- Spearheaded Google's initiative to equip NSIT students with mobile development skills by developing solutions for startups and non-profits.
- Organized multiple Android hands-on workshops & multiple projects were developed by students applying learning from these workshops.

Interests and Scholarships

HackIt Girls IGDTUW 2016

WINNER

Delhi, India

Developed a MOOC look-up app to aid students in searching across MOOC sites for the best course.

Competitive Coding

SOLVED 200+ PROBLEMS ON SPOJ AND HACKEREARTH

Scholarships

- 2017 Grace Hopper Conference, India
- 2014 INSPIRE - Higher Education

Skills

Programming Languages	Python, C, C++, C#, TypeScript, JavaScript, SQL
Operating Systems	Linux (Ubuntu), Windows
Deep Learning Frameworks	Keras, Tensorflow, PyTorch
Other	Git, OpenCV, NumPy, React, Node.js, pandas