

# Udit Arora

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## EDUCATION

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### Courant Institute of Mathematical Sciences, New York University

*Master of Science in Computer Science*

New York, NY

Jan 2020 – Dec 2021

### Netaji Subhas Institute of Technology, University of Delhi

*Bachelor of Engineering in Computer Engineering; CGPA: 8.04/10.0*

Delhi, India

Aug 2012 – May 2016

## EXPERIENCE

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### Product Labs, IIIT Hyderabad

*Research Engineer*

Hyderabad, India

Jul 2019 - Dec 2019

- Implemented a pipeline for object detection and tracking in thermal images.
- Developed an end-to-end system for crowd-sourced speech data collection and transcription for 22 Indian languages.
- Product engineering and architecture for a badminton player tracking product used by Star Sports and a document chatbot used by SBI (India's largest bank) and others.

### Laboratory for Computational Social Systems, IIIT Delhi

*Research Associate*

Delhi, India

Aug 2018 - Jul 2019

- User, content and action level detection of blackmarket-driven collusion for gaining inorganic appraisals on Twitter using different embedding methods.
- Multimodal text summarization for educational content using hierarchical attention.

### Microsoft

*Software Engineer*

Hyderabad, India

Jun 2016 - Jul 2018

- **Excel:** Developed innovative ways of sharing Excel content which is being productionized as a part of Fluid framework. Enabled integration of Excel with a messaging app and filed a patent with the USPTO for the same.
- **Kaizala:** Worked on a time-driven release of Kaizala messaging app's UWP application. Developed the Chat Page and workflows like heterogeneous message views and custom cards.
- **Skype for Business:** Developed the Cloud Call Analytics feature for Skype for Business Server 2019, building a secure pipeline to upload call telemetry data online. Updated the control panel to use OAuth-based authentication.
- **Hackathon:** Winner of the OneWeek 2017 company-wide hackathon in Rajesh Jha's (EVP at Microsoft) executive challenge - developed a utility to scan and analyze receipts in Excel.

## PROJECTS

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- **Automated Cricket Umpire:** A computer vision project to make umpiring decisions like Wide/No Ball and LBW in the sport of cricket from a single smartphone camera feed using a ball tracking mechanism. ([git.io/cricket](https://github.com/udit-arora/cricket))
- **Guidance System for Visually Impaired:** A computer vision project to assist the visually impaired by using contour detection and Haar classifier on a Raspberry Pi to detect zebra crossings and crosswalks. ([goo.gl/adZ4Hf](https://github.com/udit-arora/adZ4Hf))
- **OS Algorithm Visualization App:** A desktop/android app for visualizing various operating system algorithms (CPU Scheduling, Page Replacement, etc.) - developed using Kivy framework in Python. ([git.io/osava](https://github.com/udit-arora/osava))
- **Chain Reaction Single Player:** A variant of Chain Reaction game for Android with an option to play against AI CPU bots, and integration of Google Play Game Services - 9000+ downloads. ([ncrwebsite-1033.appspot.com](https://www.ncrwebsite-1033.appspot.com))
- **NSIT Percentage Calculator:** A web-based tool to enable NSIT college students to calculate and analyze their overall percentage - used by over 20,000 students from NSIT. ([nsitpercentage.appspot.com](https://nsitpercentage.appspot.com))

## PUBLICATIONS

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- **Arora, U., Dutta, H., Joshi, B., Chetan, A., Chakraborty, T.** (2020), Multitask Learning for Blackmarket Tweet Detection. ACM Transactions on Intelligent Systems and Technology (TIST), in press.
- **Arora, U., Paka, W., Chakraborty, T.** (2019), Multitask Learning for Blackmarket Tweet Detection. IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), in press.
- **Yadav, S., Chakraborty, P., Mittal, P., Arora, U.** (2018), Children aged 6-24 months like to watch YouTube videos but could not learn anything from them. Acta Paediatrica, *doi:10.1111/apa.14291*

## PROGRAMMING SKILLS

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- **Languages:** Python, Javascript, C/C++, C#, Java
- **Tools/Frameworks:** PyTorch, Keras, Git, MySQL