

# IKNOOR SINGH

4<sup>th</sup> Year B.E. Student

Information Technology Department

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## OBJECTIVE

To attain a position where I can efficiently contribute my skills and abilities to the growth of the organization and build my professional career.

## EDUCATION

Year	Degree	Institute	Percentage/CGPA
2016-20	Information Technology Engineering	UIET, Panjab University	<b>CGPA=8.25/10</b> (Aggregate till 5 <sup>th</sup> semester)
2016	Class XII CBSE	Army Public School, Ambala Cantt	<b>95.6%</b> (PCM)

## EXPERIENCE

### IBM Research Lab, India (Research Intern)

**Jun 2019-Present**

Currently working as a project intern on the subject "Computational Identification of Political Ideology in Text" under the guidance of Dr Sumit Bhatia, IBM Research AI, India.

### Queen's University Belfast, UK (Research Intern)

**Jan 2019-Present**

Currently, working as a remote intern under the guidance of Dr Deepak Padmanabhan, Assistant Professor, Queen's University. I am working on research collaboration on the subject "Fake News Detection and Analysis using Machine Learning". Also, wrote a research paper which is currently under review at Journal.

### Design Innovation Centre, Panjab University (Research Intern)

**June 2018-Dec 2018**

Worked on Similarity analysis and Plagiarism detection for Punjabi language using Natural language processing. This project was sponsored by **MHRD India**. Also, worked on clustering of documents and implemented various text preprocessing and vectorization functions for the Punjabi language as not much work has been done for Indian native languages. I presented my poster at **ACM Compute 2018**.

### Santulan Technologies (Summer Intern)

**May 2017-Aug 2017**

Santulan Technologies is an artificial intelligence startup. As an intern, I did research work on a project involving the use of machine learning in optical character recognition domain. Implemented a deep neural network for the automatic recognition of handwritten characters.

## PUBLICATIONS

Iknoor Singh, Deepak P and Anoop K, "On the Coherence of Fake News Articles", in *Journal of Computational Social Science (JCSS)*, 2019.

Iknoor Singh, Vijay Paul Singh and Naveen Aggarwal, "Comparative Study on Punjabi Document Clustering", in *International Conference on Computational Intelligence and Data Science (ICCIDS 2019)*, India, 2019.

Pranav Shankar, Rajat Kaushal and Iknoor Singh, "Analyzing Varied Approaches for Forecast of Stock Prices by Combining News Mining and Time Series Analysis", in *IEEE International Conference on Computing, Power and Communication Technologies (GUCON 2019)*, India, 2019.

Akanksha Chuchra, Iknoor Singh, Vijay Paul Singh and Naveen Aggarwal, "Similarity Analysis & Plagiarism Detection for Punjabi Documents using NLP", in *Proceedings of the 11th Annual ACM India Compute Conference*, Chandigarh, India, 2018.

## PROJECTS

### Crime Mapping and Prediction

Implemented an algorithm that takes safety as the constraint to compute the safest optimum path from one place to another. Leaflet maps were used to show the directions. The path was calculated based on the real time crime data received through crowdsourcing. This crime data was also used to train a supervised machine learning model for crime prediction at a particular place and at a particular time.

Got **Third prize** from over 3000 teams in a hackathon conducted by Nagarro co.

### Search Through Video

Search through the video to find the exact time at which the sub-topic is being taught or discussed in a long monotonous video. This prevents manual searching through video and saves a lot of time. This is currently not implemented in most of the video streaming websites.

Got **First prize** for this project in a hackathon conducted by Design Innovation Center, Panjab University.

### Automatic Evaluation

Automatic assessment of subjective answers using Natural Language Processing based evaluation. Built a web app to check the semantic similarity of the solution given by the user with that of original answer written in the database and give marks accordingly. Got **First prize** for this project in a hackathon conducted by IIT BHU.

Also got **14<sup>th</sup> rank** in India in an online hackathon conducted by Unisys Co.

### Exoplanet Hunt

Designed a supervised learning model to predict the existence of exoplanets given the light intensity readings from that star over time. This project involved initial pre-processing of data and applying Linear Support Vector classifier to classify flux intensities as exoplanet or non-exoplanet star.

## COMPUTER SKILLS

**Programming Languages :** C/C++, Python, SQL, HTML, CSS, JavaScript

**Interests:** Machine Learning, Natural Language Processing, Algorithms & Data Structures

**Platforms:** MacOS and Windows

## EXTRA CURRICULAR ACTIVITIES

- ☐ Got selected as **Microsoft Student Partner** for the academic year 2017-18. I learned various Microsoft technologies including the development and deployment of machine learning models in Azure cloud. I am a

part of the programming club where I constantly mentor and introduce students to the new technologies by taking seminars and development sessions.

- ☐ Team lead at **AIESEC**, the world's largest youth-run organization associated with the **UN**.
- ☐ Competitive Programming. Got **24th rank** in India in Code-n-counter conducted by Hackerearth.
- ☐ Love to explore cosmos and keep myself up-to-date with **Astronomy** news.
- ☐ An active member of **SOREM society (NGO)**. It's a Society for Rehabilitation of Mentally Challenged. I have been involved in various social events including teaching and helping the disabled children.
- ☐ Coordinated events held in college. **Team lead** for organizing college fest events, Model United Nations, TED talks and many more.

## CONFERENCES/WORKSHOPS ATTENDED

- ☐ Attended the **Microsoft Student Summit 2017** organized by Microsoft at BITS Pilani, featuring lectures by Narendra Bhandari and Venkatesh Sarvasiddhi
- ☐ Attended **Google Solve for India conference 2017**.
- ☐ Attended **FOSSASIA** meet to promote the use of open source technologies and contribute to the open source communities.
- ☐ Attendee at **PyCon India** conference, New Delhi.
- ☐ Represented my school at **International CBSE Summit 2014**.