# Anjul Kumar Tyagi

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## Research Interest

Data Visualization and Analytics, Machine Learning, Algorithms, Big Data.

## Education

**PH.D. IN COMPUTER SCIENCE | AUG 2017 – PRESENT | STONY BROOK UNIVERSITY, STONY BROOK, NEW YORK, USA.**

- Visual Analytics and Imaging Lab
- Advisor: Prof. Klaus Mueller
- GPA: 3.9/4

**B. TECH IN COMPUTER SCIENCE | 2013 - 2017 | INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, VADODARA, GUJARAT, INDIA.**

- GPA: 8.63/10

## Programming Skills

- Python, JavaScript, MATLAB, Java

## Publication

- Road Accidents in the UK (Analysis and Visualization) [Poster Paper]
    - Authors: **Anjul Kumar Tyagi**, Ayush Kumar, Anshul Gandhi, Klaus Mueller
    - To appear in IEEE VIS, October 2018 held in Berlin, Germany.

## Open Source Experience

I have contributed to Mozilla's Update Handling server (Balrog). My contribution details are available with this link.

## Research Experience

**BAYESIAN OPTIMIZATION FOR FINDING THE BEST CLOUD CONFIGURATION     PROF. ZHENHUA LIU**

- Improved the Bayesian Optimization variables used in Cherrypick to predict the best cloud configuration for a given workload.

**PREDICTING THE NFL SUPERBOWL WINNERS                    PROF. STEVE SKIENA**

- Predicted the winners of NFL for the season 2017-18 using machine learning and data mining techniques.

**NNMCB (INDIAN INSTITUTE OF TECHNOLGY, MADRAS)               PROF. KARTHIK RAMAN**

- *Analysis of synthetic lethals in community models of human gut microbes:* Studied the interactions between human gut microbes using Linear Algebra techniques and Data Analysis.

## Other Projects

- *Author attribution using Support Vector Machines:* Studied the applications of **SVM** on the **author attribution problem**.
- *3-D graphic designing using OpenGL* | *IIIT-V* | *Prof. Pratik Shah: Created a* 3-D graphic with **Pygame and OpenGL** with objects created in **Blender**.
- *Implementing inverted index using map-reduce on Wikipedia dump hosted on a Hadoop cluster* | *IIIT-V* | *Prof. Parth Gupta:* Performed **Map-reduce** on Wikipedia data to create an inverted-index of the text and the documents.
- *Image text extractor and translator android app* | *lIIT-V* | *Prof. Parth Gupta:* An **android application** that could extract English text from an image and translate into Hindi. Built with **Tesseract and Google translate APIs**.
- *Weekly Task Manager android app:* An **android application** that could help in maintaining the weekly time table of all the activities of a person.
- *Book sharing portal and android APP* | *IIIT-V* | *Prof. Asim Banerjee:* This project included an **android application and a website** that could help the students of the college to share the study material i.e. buy and sell, also including a forum for discussion.
- *Speed breaker predictor app* | *IIIT-V* | *Prof. Pratik Shah:* **Android application** that could predict the upcoming speed bumps for the users given their GPS location. The main purpose of this application is to reduce the accidents caused by speeding vehicles hitting the speed breakers.

## Teaching Experience

**TEACHING ASSISTANT | DATA STRUCTURES AND ALGORITHMS | AUG 2017 – MAY 2018 | STONY BROOK UNIVERSITY**
**TEACHING ASSISTANT | INTRODUCTION TO PROGRAMMING | AUG 2016 – DEC 2016 | IIITV**

## Awards and Achievements

- Selected among the top 63 students across All India for the NNMCB internship offered by Indian Institute of Science, Bangalore.
- Speed breaker predictor application selected to be presented at the Computer science and automation summer school held yearly at Indian Institute of Science, Bangalore in 2016.
- Got All India Rank 22 in the International Informatics Olympiad, 2011.