Shreyansh Singh

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IIT(BHU), Varanasi

Computer Science and Engineering
2nd year Undergraduate
CPI : 9.75/10

Examination	University / Board	Institute	Year	CPI / %
B.Tech. 1st year	IIT (BHU), Varanasi	IIT (BHU) , Varanasi	2017	9.75/10
12th	CBSE	Kendriya Vidyalaya, New Delhi	2016	96.6%
10th	CBSE	Kendriya Vidyalaya, New Delhi	2014	10/10

Scholastic Achievements

Hyperlinks at appropriate places

- Secured **All India Rank 576** in JEE Advanced 2016 among 0.2 million candidates
- Obtained **99.99 percentile** in JEE Main 2016 among 1.5 million candidates
- Secured **All India Rank 116** in Kishore Vaigyanik Protsahan Yojana (KVPY) 2015, a Govt. of India initiative
- Cleared the National Talent Search Examination (NTSE) 2014, a Govt. of India initiative wherein 1000 meritorious students are selected at the class 10th (All India) level.
- *Certificate of Merit* in National Standard Examinations in Physics, Chemistry and Astronomy (NSEP, NSEC, NSEA) in 2015 and 2016 for being in the **top 1% (top 300)** of the country in each of them
- Cleared Junior Maths Olympiad (JMO) in both 2015 and 2016
- Secured **Delhi state rank 5** in Junior Science Talent Search Examination (JSTSE) 2013.

Technical Skills and Interests

- **C/C++, Python, JavaScript**, Java, HTML/CSS, Node.js, Django, Bash, LaTeX, MATLAB, GNU Octave, PostgreSQL, MongoDB, Git
- Competitive Programming, Android / Web Development, Machine Learning, Computer Networking, Chatbots, Web Scraping and Crawling, Capture the Flag contests

Key Projects

Review Opinion Diversification

Autumn'17 - Ongoing

Under the guidance of Prof. Anil Kumar Singh

- Part of the organizing team of RevOpiD, a shared task being organized at IJCNLP 2017 (*International Joint Conference on Natural Language Processing*, Taipei, Taiwan).The task aims to produce a top-k ranking of product reviews which can sufficiently represent the gist of opinions expressed in all the reviews of that product.
- Implemented the official baseline for Subtask-B of the shared task. The work done can be found here.
- Volunteered to annotate gold dataset for the shared task.
- Currently working on techniques like Paragraph Vectors (Doc2Vec) and Clustering to try solving the problem.

Live Twitter Sentiment Analysis

Summer '17

- Developed a sentiment analysis module using the Natural Language Toolkit (NLTK).
- Used voting method involving algorithms like Naïve Bayes Classifier, Multinomial Naïve Bayes Classifier, Stochastic Gradient Descent, Bernoulli Naïve Bayes to make a custom classifier.
- Used the Twitter Streaming API to get live tweets on a topic and plot a real time graph of sentiment value of the tweet using Matplotlib.

RemindMe FB Messenger Chatbot *Summer '17*

- Created a Reminder Chatbot for the Facebook Messenger Platform, coded up entirely in Node.js.
- Added Natural Language Understanding to the bot by using the services of WIT.AI.
- Also used the non-relational MongoDB to temporarily store reminders of different users until the reminding time after which the reminder is removed from the database.

Worldlink *Autumn'17 - Ongoing*

- Creating a social networking website (webapp) in Django as a part of my curriculum project.
- Currently, features include user authentication, profile edit options, posts/blogs creation, like and comment posts, search users, send personal messages and also follow them.

RemindMe Android App *Winter '16*

- Created a basic Reminder application in Android Studio capable of reading the reminder from the user and displaying it in the notification bar of the phone.
- Added features to repeat the notification after a specific time interval and also to add a deadline for the notification.

OtherProjects

- **GeoPhotos Webapp:** Created a web application in Django to search and display the Instagram photos uploaded around the world, based on location with real time auto updation of list. It uses the Google Maps API to convert given location to latitude and longitude and then uses the Instagram Media API to get images for that location and display on the webapp.
- **WeatherBot:** Created a rule based chatbot with command line interface (CLI) to display current as well as future weather forecast for a place. It uses the Yahoo Weather API to get weather information.
- **Pong:** Programmed a simplified version of the classic game Pong in Python using the SimpleGUI library.

Key Courses

Curriculum

- Computer Programming, Data Structures, Information Technology Workshop (I & II), Computer System Organisation, Calculus, Linear Algebra, Discrete Maths, Probability and Statistics.

Extra Courses

- Developing Android Apps (Udacity), Interactive Programming using Python (Coursera), JavaScript (Codeacdemy), CompTia Network+ Training (Cybrary), Develop Incredible Chatbots (Udemy), Intro to Machine Learning (Coursera), Deep Learning for NLP (Videos) (Stanford, CS224N)

Extracurriculars

- Bagged **4th position overall** and the **1st position in Novelty** at the Inter IIT Tech Meet 2017, held at IIT Kanpur in the event "Dashboard". It was a web development event where we had to build an open source, accessible resource host which could serve as a one stop destination for the students of the college for all relevant information like – timetable, campus events calendar, course reviews, academic resources.

- **Frontend Web Developer** for Codefest'17 – the annual coding festival of the Department of Computer Science and Engineering, IIT (BHU) Varanasi.