

Shreyansh Singh

IIT(BHU), Varanasi

Email : shreyansh.singh.cse16@iitbhu.ac.in
Github : <https://github.com/shreyansh26>
Phone : +91-9654070844

Computer Science and Engineering
2nd year Undergraduate
CPI : 9.65/10

| Examination | University / Board | Institute | Year | CPI / % |
|-------------------|---------------------|-------------------------------|------|---------|
| B.Tech. (Ongoing) | IIT (BHU), Varanasi | IIT (BHU) , Varanasi | 2017 | 9.65/10 |
| 12 th | CBSE | Kendriya Vidyalaya, New Delhi | 2016 | 96.6% |
| 10 th | 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, C#, Node.js, Django, Bash, \LaTeX , MATLAB, GNU Octave, PostgreSQL, MongoDB, Git, Solidity
- Competitive Programming, Android / Web Development, Machine Learning, Computer Networking, Chatbots, Web Scraping and Crawling, Capture the Flag contests, Blockchain technology

KEY PROJECTS

Multilingual Surface Realization for Natural Language Generation

Ongoing

Under the guidance of Prof. Anil Kumar Singh

- Currently working on Surface Realization Shared Task being organized at ACL 2018 (*Association for Computational Linguistics*, Melbourne, Australia). The task aims to Determining the word order and inflecting words from given unordered Universal Dependencies (UD) structures from which word order information has been removed and the tokens have been lemmatized.
- Using Autoencoders and Neural Machine Translation methods to solve the problem of reinflection and correct word order generation.

Review Opinion Diversification

Autumn'17

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](#).
- Also worked on techniques like Paragraph Vectors (Doc2Vec) and FB Research's Sentence embedding model InferSent with Spectral Clustering to solve the problem.
- Volunteered to annotate gold dataset for the shared task.

Captcha Solver

Winter'17

- Dataset was obtained from the Wordpress Captcha Plug-in. Used OpenCV to split the captcha image into different characters from left to right and saving them for training.
- Trained a Deep Convolutional Neural Net on the characters with two convolutional layers and two fully-connected layers to identify the characters, which achieves upto 99% accuracy.
- Tested the model on some sample images with perfect results.

Worldlink

Autumn'17

- Created a social networking website (Webapp) using the Django framework as a part of my curriculum project.
- Features include user authentication, profile edit options, posts/blogs creation, like and comment posts, search users, send personal messages and also follow them.

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.

Other Projects

- **Live Twitter Sentiment Analysis:** 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 Classifier 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 tweets using Matplotlib.
- **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.
- **RemindMe Android App:** 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.

KEY COURSES

Curriculum

- Data Structures, Algorithms, Information Technology Workshop (I & II), Computer System Organisation, Operating Systems, Artificial Intelligence, Calculus, Discrete Maths, Probability and Statistics.

Extra Courses

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

EXTRACURRICULARS

- Secured **6th position** at the Inter IIT Tech Meet 2018, held at IIT Madras in the Machine Learning(with Optimization) based event “Optimal Bidding”.
- Bagged **4th position overall** and the **1st position in Novelty** at the Inter IIT Tech Meet 2017, held at IIT Kanpur in the web development based event “Dashboard”.
- **Frontend Web Developer** for Codefest'17 – the annual coding festival of the Department of Computer Science and Engineering, IIT (BHU) Varanasi.