

# Rishabh Bhardwaj

Undergraduate  
Department of Computer Science and Engineering, IIT Kanpur

Email: brishabh@iitk.ac.in, rishabhrbs96@gmail.com  
Phone: +91 775 504 7810

## EDUCATIONAL QUALIFICATIONS

Year	Degree	Institution	Performance
2014-present	B.Tech	Indian Institute Of Technology Kanpur	8.1/10.0
2014	AISSCE, XII (CBSE)	Delhi Public School Ghaziabad, Ghaziabad	93.8%
2012	AISSCE, X( CBSE)	K.V. Kamla Nehru Nagar Ghaziabad	10/10 CGPA

## ACADEMIC ACHIEVEMENTS

- Secured an All India Rank of 172 in JEE Advanced 2014 given by about 150,000 shortlisted candidates (99.89 percentile).
- Secured an All India Rank of 3657 in JEE Main 2014 among 1,500,000 students(99.76 percentile).
- Secured All India Rank 422 in Kishore Vaigyanik Protsahan Yojana (KVPY) 2014.
- Secured State wise top 1% in NSEC (Chemistry Olympiad).

## INTERNSHIP

Amazon Inc., Bangalore, India

### Evaluation of Reviews Appropriateness for Outbound Marketing

May'17 - Jul'17

Project aimed at building a service to rank consumer reviews of a product in order of their relevance for a customer.

- Studied about the current reviews ranking algorithm used by amazon and proposed a method to predict helpfulness of reviews by considering only the structural features of review text.
- Filter out inappropriate and non-English reviews. Used readability formulas to get readability score of the reviews.
- Assigned a content score to each review. This score depends upon how much does a review talks about the product (this is also used to filter out reviews which does not belong to this product).
- Used content score and readability score to rank the reviews and extract top n (given by the user) reviews.
- Created python package using nltk to generate ranked list of reviews. Used AWS's Dynamodb and S3 to get and store data.
- Created Java Service which first fetches reviews of a product and then uses the python package to rank the reviews. Uses Amazon Jython to integrate Java service with python package.

## PROJECTS

### Automatic Detection of Slide transition in lecture videos of MooKIT

May'16 - Jun'16

- Developed a system to automatically detect transition points of lecture slides in a lecture video. Proposed method involves using SIFT algorithm for comparing video frames based upon a global threshold. Used OpenCV library of python.

### A comparative survey on Zero Shot Learning

Sept'16 Nov'16

- Did a comprehensive survey of existing works in the field of Zero Shot learning and did comparison of some of the existing methods.

### YAHS: Yet Another HTTP-proxy Server

Oct'17 Nov'17

- Created a concurrent HTTP proxy server that can serve HTTP GET, POST and HEAD requests and can evaluate all the incoming requests and filter out the illegal ones.

### Compiler for C Language

Jan'17 Apr'17

- Course Project in Compiler Design under Prof. Amey Karkare. Developed and designed compiler for C Language using Python as Intermediate Language. Implemented dynamic memory allocation, a lexical scoping system, a type system and type checking.

### AskApp: Advanced qa forum using Google Firebase

Jan'17 Apr'17

- Course Project in Principles of Databases System. Developed an Android App where user can login using their personal email id or Gmail Id and can ask or answer questions. Used Google Firebase Realtime Database for storing the data and the login features.

### Operating Systems: NachOS

Jul'16 Nov'16

- Extended the standard system call library of NachOS and implemented process scheduling algorithms such as UNIX scheduling, Shortest Job First etc. Implemented page replacement algorithms such as Random Page Allocation, FIFO and LRU.

## OTHER PROJECTS

### Antaragni'15 Website

July'15 - Nov'15

### Efficient Crew Scheduling by using set covering and column generation approach

Jul'17 Nov'17

### Cops and Robber Game on Graphs

July'15 - Nov'15

### ACP IIT Kanpur Website

Aug'14 - Jan'15

## RELEVANT COURSES

**Computer Science:** Natural Language Processing, Introduction to Machine Learning, Computer Security, Data Structure and Algorithm, Logic for Computer Science, Operating System, Theory of Computation, Computer Networks, **Others:** Introduction to Game Theory, Analytics in Telecom and Transportation, Probability and Statistics, Fundamentals of Calculus (\* ongoing)

## TECHNICAL SKILLS

**Programming Languages:** proficient :C, C++; **familiar :** Java, Python

**Web Development:** HTML, CSS, Javascript, PHP

**Software and Tools:** OpenCV(Python), L<sup>A</sup>T<sub>E</sub>X, Git, SQL, Vim; **OS:** Windows, Linux (Ubuntu)

## POSITION OF RESPONSIBILITY

**Web Master,** SIGML, IITK Dec'15 - present SIGML - Special Interest Group on Machine Learning of Computer Science , is a group of people interested in areas of Machine Learning, Data Mining and related fields

**Web Executive,** Antaragni 2015, IITK

July'15 - Nov'15

**Junior Web Executive,** Alumni Contact Program,