

# Rishi Dua

✉ [rishi@rishidua.com](mailto:rishi@rishidua.com)  
🌐 [www.rishidua.com](http://www.rishidua.com)  
🌐 [rishirdua](#) | 🌐 [rishirdua](#)

2010–2015 **Indian Institute of Technology Delhi (IIT Delhi), India.**  
B.Tech and M.Tech (Dual Degree), Electrical Engineering, *GPA: 8.5*

## Work Experience

- May'14 - Jul'14 **NICTA, Intern, Machine Learning Research Group, Canberra, Australia.**
- Fine-grained the *friend sensor* model, for preemptive **trend detection** on social media
  - Identified *central users* by modeling network of 20 million users from 2 billion tweets
  - Recorded 11 days lead in hashtag use among sensors compared to randomly chosen users
- May'13 - Jul'13 **Sony Corporation, Intern, Big Data Team, Tokyo, Japan.**
- Performed sentiment analysis of tweets and customer reviews to examine brand equity
  - Parsed reviews, investigated TF-IDF scores and visualized branding factors in D3.js
  - Extended a full time job offer in the *Big Data* team based in Sony Headquarters, Tokyo
- May'12 - Jul'12 **University of Wisconsin - Madison, Intern, Madison, USA.**
- Implemented Hidden Markov model to predict effect of transcription factors on gene expression
  - Wrote scripts to automate detection of pivotal sequences from gene expression data
- Sep'11 - Oct'14 **Teknovates, Co-Founder, Web development startup, India.**
- Led development of content management system plugins and themes for over 20 websites
  - Conceptualized and built an e-learning platform and a payment gateway integration module

## Projects

- Machine Learning **Emotion Classification, Kernel-based feature selection.**
- Implemented feature selection using *Hilbert-Schmidt independence* and backward elimination
  - Benchmarked performance on neural networks, SVMs and k-nearest neighbours classifiers
- NLP **Smart Chat, Real-time personalized recommender for instant messaging.**
- Developed topic categorization model using *Bernoulli* and *Multinomial Naive Bayes* classifiers
  - Integrated click monitoring to leverage user feedback for improving classification accuracy
- Competition **CanSat, Planetary Atmospheric Entry Vehicle Competition, Abilene, Texas, USA.**
- Devised system to enable communication between ground station and the CanSat carrier
  - Secured 3<sup>rd</sup> position among 40 teams from 28 countries and garnered sponsorship of ₹500,000

## Programming Experience

- Open Source Contributed Drupal modules, a Google Chrome Extension and utilities on GitHub
- Google Play Developed Drinkify, a drink recommender and PaletteArt, an image editor for Android
- Skills Java, Python, C++, Lucene, Hadoop, scikit-learn, Weka, CSS, JavaScript, HTML
- Hackathons Won Microsoft Appathon, participated in Imagine Cup, code.fun.do and Yahoo HackU

## Scholastic Achievements

- IIT-JEE 2010 Secured All India Rank 386 in IIT-Joint Entrance Exam among 0.5 million candidates
- Study abroad 1 of 3 selected from IIT Delhi and awarded scholarship for a semester at NTHU Taiwan
- Scholarships Among 41 Khorana Scholars from India in 2012 and qualified for KVPY fellowship 2009
- Tech talk 1 of 6 from IIT Delhi invited to present at Indo-European Winter Academy 2013
- Olympiads International Rank 24 in Mathematics Olympiad, among top 1% in InChO Olympiad
- Teaching Teaching Assistant for a hardware programming course of 118 students for fall 2014
- Awards Among top 10 in national level of GE Edison Challenge and IBM Technical Web Contest