

ACADEMIC PROFILE

Year	Degree/Certificate	Institute/Board	CGPA/%
2015(expected)	B. Tech-M.Tech (Computer Science & Engg.)	IIT Kanpur	PG: 8.8/10.0 UG: 8.1/10.0
2010	AISSE(XII)	Sunbeam English School, Varanasi	96.2%
2008	AISSE(X)	Sunbeam English School, Varanasi	95.0%

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank 226** IIT-JEE-2010, **All India Rank 288** in AIEEE-2010 and **Rank 16** in UPSEE 2010
- Selected for **Summer Undergraduate Research Fellowship Award-2012** at IISC Bangalore & **NCTU(Taiwan) Fellowship-2012**
- Selected for **InCNTRE Summer of Networking-2013** at Indiana University, USA & **Yahoo Summer School-2013**
- Awarded **Merit Scholarship-2010** for Professional Studies by CBSE and **UP Govt. Science and Technology Scholarship-2010**
- Awarded **0.1% Merit Certificate** by CBSE in **Physics, Chemistry and Math** in AISSE-2010 and in **Science** in AISSE-2008

SUMMER INTERSHIPS

Authorship Authentication Using Short messages from Social Networking Sites (to be submitted) (May'14-Jul'14)

Advisor: **Li-Chiou Chen**, Professor, **Pace University**, New York, USA

- Studied the effect of various classifiers, sets of stylometry and ad hoc social networking features on Facebook Data of 10 users
- Designed an algorithm that combined top 3 classifiers with voting; achieved very good authentication results on small dataset

Sponsored Content

(May'13-Jul'13)

Advisor: **Akhil Mathur**, **Sharad Jaiswal**, Researcher, **Bell Labs**, India

- Proposed a solution for content providers like YouTube to sponsor content so that users are not charged data for viewing them
- Studied its impact on end users' usage behavior of mobile data with a self-built Android app that could monitor usage
- Set up a VPN server and a nodeJS-server script that could store and manipulate statistics of a user

MultiWay Cut

(May'12-Jul'12)

Advisor: **Kurt Mehlhorn**, Director & Professor, **Max Planck Institute for Informatics**, Saarbrücken, Germany

- Studied the concept of Important Separators and various graph algorithms, applied on certain NP Complete Graph problems
- Implemented the problem of Multi Way Cut in graphs using C++ and LEDA; achieved optimal results on various graphs

KEY COURSE PROJECTS

Master's Thesis (Discovering Lexical Classes and Syntax)

Advisor: **Amitabha Mukerjee**

- Studied various papers to develop a concrete methodology for syntax and lexical classes induction
- Emphasis on unsupervised methods for induction of syntax and lexical classes; analysis of extension of state-of-the-art for Hindi

Movie Recommendation System (Machine Learning)

Fall '13

- Built a system that predicts whether an unknown user is likely to see a given movie on the MovieLens dataset
- Used various user-based and item-based Collaborative filtering; achieved RMSE of 0.947 and MAE of 0.741 in rating predictions

Measuring Similarity between Documents (Natural Language Processing)

Fall '13

- Clustered similar documents together to form a coherent cluster, separating unlike documents into different clusters
- Studied various approaches to compute similarity between two documents such as Pearson Correlation, Cosine Similarity, etc.

3D Reconstruction from Several Images (Computer Vision)

Spring '14

- Created 3D models from a set of images; used Feature matching, Camera calibration, depth determination, triangulation

Unsupervised Cross Lingual Alignment

Spring '14

- Proposed a framework that could align cross lingual bitext without supervision; used PLSA and ADIOS as baseline system
- Worked on a manually built corpus in 2 languages (English & Hindi) containing around 50,000 tokens

Other Course Projects

- Artificial Intelligence:** Implemented PLSA for Identification of Emotions in text using PCFG parser and ISEAR corpus
- Computer Networks:** Packet Sniffer for capturing packets in local network by acting as gateway
- Mobile Computing:** Designed an android app that could control a laptop using Wi-Fi with various types of gestures
- Database:** Designed a Hostel Management System facilitating profile creation and complaint addressing using PHP and MySQL
- Compilers:** For a subset of ADA ver2 and code generation for MIPS architecture

TECHNICAL SKILLS

- Experience in Android App Development; Competitive Programming (**Rank: 385** on Hackerrank)
- Programming Languages:** C, C++, Java, Python, R, Bluespec Verilog, Assembly Language, Bash, Oz
- Tools:** WEKA, HTML5, CSS, Latex, Matlab, LEDA, MySQL, Lex, Yacc, PHP, Apache, NodeJS, Git

EXTRA CURRICULAR ACTIVITIES AND ACHIEVEMENTS

- Student Guide**, Counseling service, IIT Kanpur (Fall'11-Spring'12)
 - Helped and supervised new students during their stay in First Year
- Coordinator**, Informal Events, Udghosh'11 and **Executive**, Show Management, Udghosh'12, annual sports festival of IIT Kanpur
- Conducted National Programming League-2012, NIT Trichy programming event at Kanpur-Center sponsored by Interview Street
- Won Business Quiz, Takneek'10, Intra-IITK Technical Festival
- Participated in American Express Pan-IIT Data Analytics Contest **Analyze This!!-2014**