

SCHOLASTIC ACHIEVEMENTS

- Awarded **Institute Academic Reward** (2011) for ranking **2nd in the department** (in a batch of 89)
- Pursuing **Honors in CSE and Minors in Electrical Engineering**
- Awarded **Gold Medal in Indian National Physics Olympiad 2010** (**top 35** from all over India)
- **All India Rank 81** in IIT-Joint Entrance Examination (2010) from around 450,000 entrants
- Awarded **National Talent Search Scholarship**(Top 1000 in India) and secured **All India Rank 3** in National Science Olympiad (2008), **4** in National Cyber Olympiad(2010), **7** in International Mathematics Olympiad(2010)
- Selected for the prestigious **Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship 2010**
- Certified **C++ programmer** for over **11 years** (National Institute of Information Technology)

PROJECTS AND INTERNSHIPS

STUDENT INTERN, MICROSOFT RESEARCH REDMOND

[Summer 2013]

Application of Neural Networks –Brian Guenter

- Designed and implemented **deep neural networks** of increasing complexity
- Used **novel optimizations** to boost learning and **visualizations** for hyperparameter tuning
- Produced **results which generalize better** compared to contemporary algorithms

VISITING SCIENTIST, INSTITUTE OF SCIENCE AND TECHNOLOGY AUSTRIA

[Summer 2012]

How can we use edit distances of unrealizable specifications to make them realizable? – Prof. Krishnendu Chatterjee

- Extensive **literature survey** of Unrealizable Specifications in Formal Verification
- **Devised methods** to form deterministic Edit Automata from DFA's, Buchi and Parity automata
- Proved **complexity bounds** and **examples** indicating superiority over existing methods

SELECTIVE CLASSIFICATION (B.TECH. PROJECT)

[July 2013 till date]

Can we guarantee accuracy of classification by selecting a subset of data? –Prof. Sunita Sarawagi

- Aim to design and test a classifier using **structural learning and convex optimization**
- Investigate the theoretical relation between prediction accuracy and training parameters

QUANTUM COMPUTER SIMULATOR

[Spring 2011]

An educational cum research tool for development and testing of quantum algorithms

- **Developed algorithms** to simulate quantum gates on registers by manipulation of binary trees
- Created a **macro based language layer** to feed functions directly in scientific symbols
- Implemented **standard quantum algorithms** to show applicability and prove accuracy

POSITIONS OF RESPONSIBILITY

MANAGER, TECHNOVATION: INSTITUTE INNOVATION PROGRAM

[July 2012 till date]

- Led a new program, designed a constitution, identified leaders with ideas and **guided 8 teams**
- **Novel monitoring and feedback** ensured continued participation of over 80 students
- Awarded **Institute Organisational Award** for innovative practices and motivating leadership

OTHER POSITIONS

[July 2013 till date]

- **Institute Student Mentor(2013)** – Mentoring **12 freshmen** towards balanced development
- **Teaching Assistant** Taught 3 different courses to students over 4 semesters
- **Hostel Web Secretary (2011)** – Awarded **Hostel Organisational Color** for using novel web technologies

EXTRACURRICULAR ACTIVITIES

- **Winner(2012) and Runner Up (2013) at Yahoo! HackU** for making DriveStack and Time Flyer
- **Finalist** in IITB track in **Eureka 2012** (B-plan competition) for viability of Peapod, an affordable computer
- Awarded **Hostel Technical Color twice** for contribution to technical activities in hostel (2011, 2012)
- Completed Basic **Japanese** course (International Relations Office, IIT Bombay)
- Stood 1st in homepage making, group dance and foot painting competitions amongst freshmen