JESIKA H HARIA

EDUCATION

Massachusetts Institute of Technology Class of 2014 *Cambridge, MA*
S.B. Electrical Engineering and Computer Science (Course 6-2) **GPA: 4.7/5.0**

Dhirubhai Ambani International School *Mumbai, India*
Achieved 45/45 points in the International Baccalaureate Final Examination; 36/36 in the Extended Essay in Chemistry (June 2010)
Secured 10 A*s (Average: 96.1%) in the Final IGCSE Examinations (June 2008).
Presented with **Best Student in India Award** based on top overall score in 6 subjects.
Ranked first in India in 5 subjects in IGCSE, namely Additional Mathematics, Physics, Chemistry, English Literature and French.

WORK EXPERIENCE

Trifacta Inc. *San Francisco, CA*
Software Developer *July 2014 - present*
- Obtained solid **enterprise readiness experience** in backend/ infrastructure, i.e. Kerberos, SSO and SSL security implementations, connectivity and publishing frameworks, Docker-izing Hadoop clusters, user management, sharing and collaboration, Spark/ Pig
- Built and **shipped our desktop product** Trifacta Wrangler from scratch, used by many thousands of analysts worldwide
- Acquired **frontend development** and testing skills in Backbone, for our core transformation engine, join tools

Facebook Inc. *Menlo Park, CA*
Software Software Engineering Intern, Search Team *June 2013 – Aug 2013*
- Developed, implemented and A/B tested **rewriting, scoring and blending algorithms** for Graph Search
- Constructed and tested **data indexing pipelines** using Hadoop/Hive and HiveQL for **i18n** and **l10n**

Securigin Inc. *Cambridge, MA*
Software Engineer, Researcher and Business Development *Dec 2011 – Sept 2012*
- Extracted data from thousands of **iOS** apps and created **security models** for static/ dynamic binary analysis
- Liaised with **CIOs and CSOs of Fortune 100** financial, pharmaceutical and law firms to understand corporate security needs

Thunderwake Inc. *Cambridge, MA*
Product and Business Development Intern *Jun 2012 – Sept 2012*
- Developed better iPhone app discovery algorithms using **big data analysis** and **data visualization**, formulated **growth strategy**

C For College: cforcollege.com *Mumbai, India*
Founder *Dec 2011 – March 2012*
- Developed a web-based reliable platform for high-school seniors (11/12th standard students) from Mumbai applying to universities in US, UK, Canada, Singapore to provide information and guidance about basic procedures and resources available
- Enhanced students' decision-making with live input from seniors with recent experience rather than professional consultants.

RESEARCH

MIT CSAIL: Computer Science and Artificial Intelligence Laboratory *(Prof. Samuel Madden)* *Cambridge, MA*
Undergraduate Researcher *Sep 2013 - Jan 2014*
- Developed DataHub, a **Github-like hosted platform** for organizing, sharing and collaborating on relational data
- Built out the **Python ORM**, designed and conceptualized the **Related Tables search** feature

MIT LIDS: Laboratory for Information Decision Systems *(Prof. Devavrat Shah)* *Cambridge, MA*
MIT EECS Undergraduate Research Scholar (Super UROP) *Sep 2012 – June 2013*
- Developed an novel **iterative aggregate ranking system** for academic papers using partially-ordered comparison-based inputs
- **Implemented and integrated** the ranking and matching algorithm into **HotCRP open-source** conference management system

MIT Media Lab: Human Dynamics *(Prof. Sandy Pentland)* *Cambridge, MA*
Undergraduate Researcher *Oct 2010 – Nov 2011*
- Investigated information propagation in low-tech social networks, by collating, arranging and visualizing complex data.
- Analyzed data trends using NetworkX, Dia, Inkscape, Gefi, yEd to generate an applicable model of data dissemination.
- **Authored paper in IEEE SocialCom11** (9.8% acceptance), findings used in book chapter on networks research methods

University Institute of Chemical Technology: Pandit Research Group *(Prof. Aniruddha Pandit)* *Mumbai, India*
Visiting Researcher *Dec 2010 - Jan 2011*

- Synthesized -mg quantities of nano-sized mixed metal oxides (ZnO-CeO2) by ultrasound assistance for end-use as **UV stabilizers** and photocatalytic degradation of the dye Acid Red 88. Manuscript developed for publication.

Reliance Life Sciences Corporation: Plant Metabolic Engineering Department *(Dr. Ajay Deore)* *Mumbai, India*
Research Intern *May 2009 - July 2009*

- Performed **transgene detection** and **tissue culture** of the *Jatropha curcas* plant
- Part I of the project involved extracting plant DNA, performing DNA purity analysis and applying separation techniques.
- Part II was plant tissue culture – involving explants selection and sterilization, aseptic manipulation of explants, leaf inoculation, subculturing and primary hardening.

Dhirubhai Ambani International School: Chemistry Extended Essay *Mumbai, India*
Independent Researcher *July 2009 - June 2010*

- Conducted independent research on the viability of using carbon dioxide to maintain the **optimum pH** for the acid-dyeing of nylon-6.
- Initiated a **novel concept for the Indian dyeing industry** that obviates the use of highly-pollutant chemical dyeing buffers and lower energy requirements of the dyeing process, successfully demonstrating up to 68% efficiency of conventional buffer method.

ACADEMIC SCHOLARSHIPS AND AWARDS

Undergraduate Teaching Assistant, **6.UAR (**Seminar in Undergraduate Advanced Research) (2013-2014)
Guided undergraduate research students in independent projects on deliverables like academic papers, talks and presentations.

Member, **MIT Eta Kappa Nu** (National Honor Society for Computer Science and Engineering) (2013-2014)
In the top quartile of my major's graduating class, invited to be part of the prestigious academic and social-service HKN society. Organized panels on women in computer science, study breaks, T-shirt sales. Tutored algorithms classes.

Eligible, **MIT Tau Beta Pi** (National Engineering Honor Society) (2013-2014)
In the top quartile of my overall graduating class, invited to be part of prestigious academic engineering society, TBP.

President, (2013-2014), *Secretary* (2012-2013), **MIT ACM/ IEEE**
Electrical Engineering and Computer Science's primary open academic and social group. Organized tech talks, conference visits, etc.

Recipient, **MIT EECS Research and Innovation Scholars Program (**aka SuperUROP) (2012-2013)
Selected to be an MIT EECS Scholar in the first pilot program for advanced undergraduate researchers to pursue independent projects.

Recipient, **Google Anita Borg Memorial Scholarship** (2013)
$10, 000 awarded to 25 young women enrolled in a computer science major in North American colleges, recipients were selected to be part of a 3-day workshop at the Google office in New York City, and fulfill a local charity's technological needs in a hackathon.

*Recipient***, Facebook Grace Hopper Scholarship** (2013)
Awarded to 25 women in computer science as an all-expenses paid trip to the Grace Hopper conference, which is the largest gathering of women technologists in the world.

Recipient, **Li & Fung Scholarship** (2013)
Awarded $1000 grant for travel to Tianjin, China for further Mandarin studies and cultural exchange.

Delegate of India, **International Linguistics Olympiad** (2010)

Recipient, **Manmohan Singh Merit Scholarship,** awarded to only 3 students in India to study at University of Cambridge (2010)

Recipient, **KTSE Scholarship** (2008)

Finalist, **India's Child Genius** televised national quiz contest, received award from then-President Dr. APJ Abdul Kalam (2005)

LEADERSHIP AND EXTRA-CURRICULARS

Committee Member, **MIT Undergraduate Student Advisory Group in EECS (USAGE)** (2013-2014)
Met with Department Head every week to give feedback about student issues such as gender inequality, undergraduate advising, graduate school. Commissioned and planned the new EECS major lounge as a space for students for social and academic activities.

Team Lead and Panel Organizer, **MIT Global Startup Workshop** in Tallinn, Estonia (2013) and Marrakech, Morocco (2014)
Organized and led a tech-talk on entrepreneurial mindset, and an 8-person panel on big data, along with numerous breakout sessions.

Winner, **MIT t=0 Hackathon 2012, Truonex 2012, Vertica-Snapshot Hackathon 2012**

Showergy Team Lead & Project Manager (Engineers Without Borders), awarded **$2500 Legatum Seed Grant** and **Best Team Award** at IDEAS/ Global Challenge (2012)
Led a 3-year long project focused on community manufacturing and dissemination of low-cost, portable and scalable shower systems in the largest urban slum in Africa, Kibera with startup Sanergy.

Mentorship & Corporate Relations Chair, **MIT Energy Club** (2011-12)
Organized panel talks and internship-matching events for members, formed the vision for industry liaisons.

Organizing Committee, **MIT Energy Conference** (2011)
Responsible for deciding organizing theme, devising Fact Sheet, contacting panelists, logistics for 200-member audience.

Student Government Member, **MIT Undergraduate Association Events Committee** (2010-2011)
Responsible for conceptualization, security and publicity of Spring Weekend 2011, an entirely student-led concert

Nominee, **MIT Baker House Leader** (2010)
Selected to be part of a leader's program for dorm's overall well-being and the personal development of its residents.

Vice President of Environment Committee, **The Hague International Model United Nations** (2009)
Chaired a 250-delegate Environment committee of the largest Model UN in the world, with 4000 total delegates. Key arbitrator between nation representatives. Created a resolution booklet sent to United Nations Headquarters, New York City.

Charge d'Affaires (Head of Administration), **DAIMUN 2009** and **DAIMUN 2008**
Responsible for administration of 500+ delegate of largest Model United Nations in India. Tasks included publicity, information technology, contacting schools, logistics and raising sponsors. Liaisoned between Committee Chairs and Secretary General.

SELECTED TALKS AND SPEECHES

TIM Fellow, **MIT TIMTalks Campus Preview Weekend 2014**
Invited to present a 15-minute talk titled 'Staying Hungry, Staying Foolish: International Edition' to prospective students and their parents. View it at: *http://techtv.mit.edu/videos/39c32f2d0fa929ddce50537d752bd6e21e293dcb/private*

Panelist, **MIT Scholarship & UROP Brunch 2014 and 2015**
Invited to be a panelist to share my varied experiences as a student, answer questions and connect with scholarship donors.

Presenter, 1st **MIT EECS Undergraduate Research Conference 2013**
Presented my work on ranking algorithms with Prof. Devavrat Shah to approximately 500 attendees and incorporated feedback.

Panelist, **KVO Study Abroad Information Session**
Answered questions from student and parent audience about application process, scholarships, culture, job opportunities in USA.

SKILLS

- *Concepts:* Network Science, Systems and Databases (Hadoop), Artificial Intelligence/ Robotics
- *Programming Languages:* Python, Java, Ruby, Objective-C (basic), C++ (basic), Thrift, Assembly, MATLAB
- *Web:* Django, Rails, HTML, CSS, Javascript, node.js, node-webkit
- *Network visualization GUIs:* NetworkX for Python, Gefi, Inkscape, yEd, Dia
- *Languages:* Fluent in English, French, Hindi; 2 year experience Mandarin Chinese; Spanish (elementary)
- *Hobbies:* Dancing, Performing drama (Trinity College Grade 5 level), Painting, Running/ Hiking