

# Ujjwal Kumar

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## Education

- ▶ Presently a 5<sup>th</sup> year Student at the **Indian Institute of Technology**, Kharagpur, enrolled in a **dual degree** course in the department of **Industrial Engineering & Management**.  
CGPA: **7.89/10** (upto 8<sup>th</sup> semester) Duration: 2006-2011
- ▶ Did my **higher secondary** schooling from **Ramakrishna Mission Vidyapith**, Deoghar (CBSE).  
Marks Obtained (aggregate): **93.0%** Year: 2004
- ▶ Did my **senior secondary** schooling from **Ramakrishna Mission Vidyapith**, Deoghar (CBSE).  
Marks Obtained (aggregate): **89.2%** Year: 2006

## Projects

- ▶ **Seaport Management System.** It is an online application for seaport management. This system is installed in the Grenada Ports Authority, Grenada, West Indies, and is live since last 3 weeks. It replaces an existing system, and is used to bill all cargo traffic through the port, apart from managing cargo, equipment, ships, shed operations and port activities. This project was entirely programmed by me in two summer internships (2009, and 2010) at Dalhousie University, under the guidance of Prof. J. Pemberton Cyrus, Associate Dean of Engineering, Dalhousie University, Canada. As part of this project, I visited Grenada for a week during summer 2010, to gather information and refine the online application. I was paid C\$25/hour for 700 hours on this project. A few modules of the project are still remaining that will be completed in due course of time.  
*Programming Language:* Ruby on Rails, Ajax and Javascript.
- ▶ **Student Information Systems.** The project is a web application and is used by the students, program coordinators, associated university directors and associate deans of seven universities at Halifax to allocate students to engineering disciplines offered by Dalhousie University based on their choices and grade points. This project was developed during the first two weeks of my summer internship at Dalhousie University in 2009.  
*Programming Language:* Ruby on Rails, Ajax and Javascript.
- ▶ **Quality Inspection of Food Products by Computer Vision.** As my B.Tech Project, I had worked with Prof. P.K. Ray, Department of Industrial Engineering and Management, IIT Kharagpur on "Improving quality inspection of food products by automated 100% inspection". The project aims to reduce the cost and time incurred in 100% quality inspection of food products. The project captures frames of the food products (we considered a specific case of apple) and then does image processing to categorize food products into different grades. The image processing code was developed in MATLAB. The project was very much appreciated, and I got an Ex (10/10) in the project.
- ▶ **Travolition: Multi-modal, multi-transit travel website.** The project is a travel website with an innovative user interface to let users decide their itinerary. This was the second project of my summer internship (May - July, 2008) at [LatticePurple](#), Noida.  
*Programming Language:* Grails for algorithm, Webharvest for crawling, Javascript (Google Maps and dojo) for user interface.
- ▶ **YouSuggest: Social Suggestion Box.** The project is a web application which acts as a suggestion box for consumers of a company. It works in four stages namely, posting ideas, voting on ideas, discussions on ideas & implementation of ideas. An implementation of the project can be found at [talktoht.com](#). This was the first project of my summer internship (May - July, 2008) at [LatticePurple](#), Noida.  
*Programming Language:* Ruby on Rails, Ajax + Javascript & open flash chart.
- ▶ **BulkDeals: Buy Together, Save More.** The project is an ecommerce website. A number of laptop models are displayed on the website & the website has a number of registered colleges. Students can log on to the website, and choose among the models, and their college. Once the order level is reached (5 for most deals), laptops are shipped to the students at a lower bulk price. This was a project I worked on during my second year for a Bangalore based startup.  
*Programming Language:* JavaServer Pages.

## Other Projects

- ▶ **Prakriti: Agri and Food Innovation Camp, IIT Kharagpur (www.prkt.in).** This is a website made for a fest organized by Department of Agricultural and Food Engineering, IIT Kharagpur. The website is an information portal for the fest. The website uses ajax to download specific content for specific pages. A separate Basic HTML website is also generated using Rails DRY property. The website uses mootools javascript library for animation effects.  
*Programming Language:* Ruby on Rails, Ajax + Javascript, mootools.
- ▶ **Lynking: NexGen Social Networking Website.** The project was a social networking website developed in Drupal, an open source project. It included cool features like friends, messages, forums, polls, stories, blogs, books & pages. The social network had 124 users registered. Unfortunately, the site crashed due to failure of some of the Drupal modules.  
*Programming Language:* php.

- ▶ **Post IIT-Joint Entrance Examination (IIT-JEE) Ranking Analysis.** The project includes assigning ranks to the candidates who qualified the examination successfully and then allocating them institutes and majors based upon their preferences. IIT-JEE is the most prestigious engineering admission test in India with over 300,000 students appearing in the tests. Real data of over 10,000 successful candidates was used for the project. A final evaluation report was to be prepared to summarize the statistics of the particular year's JEE results. Project was done using UNIX Shell Programming and JAVA.
- ▶ One month experience as a C# coder in [DataResolve](#) Systems (an IIT Kharagpur startup).
- ▶ Static pages for the following websites were developed ([snapshots present in online resume](#)):
  - Intinno.com
  - Optima 2008
  - Optima 2009
  - Spring Fest 2009
  - Lattice Purple technologies
  - Technical Processing Section, IIT Kharagpur
- ▶ I have also worked on a stub model of a chain retail store information systems, with inventory data across stores shared with the help of web services (using SOAP model of web services) as a part of my E-Business project. Currently, I am working on a conference management system as a part of my information systems – II lab, which will be implemented for a conference to be held at the Department of Industrial Engineering and Management, IIT Kharagpur in January, 2010. I plan to make the code open source. Both the projects are written in Ruby on Rails.

## Relevant Courses Taken

- |                                       |  |
|---------------------------------------|--|
| ▶ Programming and data structures     | ▶ Work system design                         |
| ▶ Design & analysis of algorithms     | ▶ Quality design & control                   |
| ▶ Information systems                 | ▶ Quality engineering                        |
| ▶ Software engineering and management | ▶ Economic engineering & cost accounting     |
| ▶ E-Business                          | ▶ Financial engineering                      |
| ▶ Software project management         | ▶ Applied multivariate statistical modelling |
| ▶ Operations research – I             | ▶ Logistics and supply chain management      |
| ▶ Operations research - II            | ▶ Discrete mathematics                       |
| ▶ Operations research -III            | ▶ Simulation                                 |

## Academic Achievements

- ▶ Was among top 50 students (99.98 percentile) among 200,000 students in ISI (Indian Statistical Institute) entrance exam 2006.
- ▶ Secured All India Rank 2307 (99.23 percentile) out of around 300,000 students in IITJEE 2006.
- ▶ Stood 13<sup>th</sup> in the world-wide contest of Project Hoshimi Programming Battle 2007 conducted by Microsoft in its First Round.

## Computer Skills

- ▶ **Programming Languages:** BASIC, C, C++, C#, java, ruby.
- ▶ **Server-Side Technologies:** JSP, PHP, ruby on rails, ajax, mysql, postgresql, webharvest.
- ▶ **Client-Side Technologies:** CSS, javascript, HTML, XML, XPATH, XQUERY.
- ▶ **Software Packages:** 3ds max, adobe photoshop, adobe premiere pro, autocad, maya, MS-office, netbeans.
- ▶ **Operating Systems:** MS-DOS, Linux, UNIX, windows.

## Extra Academic Achievements

- ▶ Head of the Spring Fest web team 2009. [Spring Fest](#) is the cultural festival of IIT Kharagpur in which about 3,000 students from different colleges all over India participate.
- ▶ Created and formulated the rules of Spring Fest event, Abode Adobe which was well accepted, and sponsored by Adobe.
- ▶ Head of the web team of the techno-management festival Optima 2008, [Optima 2009](#) at IIT Kharagpur.
- ▶ Senior member of the design team at the [Entrepreneurship Cell](#), IIT Kharagpur.
- ▶ Have done diploma in Indian classical music (Vocal) i.e. *sangeet bhushan* by the *pracheen kala kendra*, Chandigarh.

## References

- ▶ [Prof. J. Pemberton Cyrus](#)  
Associate Dean, Undergraduate Studies, Faculty of Engineering  
Associate Professor, Industrial Engineering  
[Dalhousie University](#), Nova Scotia, Canada
- ▶ [Arvind Nigam](#)  
CEO, [Lattice Purple Technologies](#)  
Noida, India