

AVIKALP KUMAR GUPTA

Computer Science and Engineering, IIT Kanpur

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EDUCATION

Examination	Year	Board/University	%Marks/CGPA
B.Tech (CSE, IIT Kanpur)	2012-2016	IIT Kanpur	7.6
12 th (Sr. Secondary, AISSCE)	2012	CBSE	93%
10 th (Secondary, AISSE)	2010	CBSE	9.6

SCHOLASTIC ACHIEVEMENTS

- Achieved **ALL INDIA RANK 99** in IIT-JEE 2012
- Secured AIR 175 in KVPY scholarship exam (2012)
- Received Top 1% certificate in IPhO 2011
- Achieved All India Rank 29 in ResoStArT 2012
- Rank 1 in a District-level Science Quiz conducted in Surat, by Quantum Classes Pvt. Ltd. (2009)
- Winner at Ramanujam Maths Quiz(Interschool quiz competition) , 2007

SUMMER INTERSHIPS

- Summer Analyst, GOLDMAN SACHS** **May-Jul'15**
Minimized Risk-weighted Assets (RWAs) for the company by making the inventory-deal allocation optimizer aware about it.
 - Enhanced the internal engine which recommends collateral allocation to secured funding trades to account for trade-offs between liquidity considerations (liquidity of allocated collateral) and capital considerations (RWAs).
 - Quantified the cost savings for the firm if collateral was allocated to secured funding trades based on the enhanced engine
 - Implemented a script which would generate an analysis report, showing the effect of the enhancement in the allocationSkills Earned: Scalable programming in functional languages, Introductory knowledge in Finance
- Backend Developer, Pariksha.Co** (*Educational Start-up focused on Mastery based Adaptive learning*) **Apr-Jul'14**
 - Project Chameleon:** Thoroughly studied the *mastery-based adaptive learning model* of Khan Academy and implemented an algorithm apt for the preparation for competitive examinations (Skills Earned:- CakePHP, PHP, MySQL, Git, OOPS)
 - Gamification (Integration with Backend):** Integrated the adaptive backend model with the Gamified user interface using AJAX and self-created APIs in CakePHP and JS (Skills Earned:- HTML+CSS, JavaScript + JQuery, AJAX (using JSON encoding)
 - Database Designing:** Worked in a team of 3 to make architectural changes in database to extend the functionality of platform so that users can prepare for multiple competitive exams (Skills earned: Database Architecture Proficiency)
 - Sales and Product Pitching:** Convinced 97 of 120 students to join the SaaS-based platform

ACADEMIC PROJECTS

- Compiler Design:** Perl to x86 cross-compiler implemented in Python using PLY library (LEX and YACC) (Jan-Apr'15)
- Machine Learning Techniques:** Demand predictor for renting bikes according to Kaggle problem statement (Jan-Apr'15)
- Computing Laboratories – website development:** Secure course management system for institutions (Oct-Nov'14)
- Computer Graphics:** First-person car simulator game in C++ using OpenGL library with real-world physics (Aug-Nov'14)
- Manufacturing Processes:** Safety scissor lift - received a *certificate of appreciation* (top 4 projects from 60) (Jan-Apr'14)
- Aeromodelling Club, Summer 2013:** Ridable hover-board which could hover with a person of mass up to 72 kgs (May-Jun'13)
- ACA (Association for Computing Activities):** Forum for interaction with jury and server-sync clock on DOMjudge (Jan-Mar'13)

POSITIONS OF RESPONSIBILITY

- Antaragni'15: Senior Executive***, Finance: Responsible for all financial and accounting matters of the festival. In particular:
 - Prepare the budget in consultation with the rest of the Core Team and present the budget
 - Submit all bills to the Finance Committee after the conduction of the festival
- Techkriti'15: Coordinator**, Software Corner: Conducted the event Chaos (esoteric language coding competition):
 - Designed the problem statements such that they were apt according to the language and the duration of event
 - Supervised the conduction and resolved the queries of the participants, along with sending updates about the event
- Summer Sports camp'13: Captain**, Football team: Played at the striker's position for the institute's football team and:
 - Coordinated with the Games and Sports Council (Students' Gymkhama) and other sports teams, for facilities & equipment.
 - Assisted Football coach in improvement of trainee performance by off-field motivation and in-match guidance

EXTRA-CURRICULAR ACHIEVEMENTS

- German Level-I** (2014-2015): Passed with A grade
- Mood Indigo'13:** Street Dance (Group) - Semi-finalist
- Mood Indigo'13 & '12:** Bollywood Style dance - Finalist
- Antaragni'13** Inter-college Dance Competitions: - Jitterbug: 3rd position | Tour-de-Force : 2nd position
- Udghosh'13** Inter-college Football – Silver-medallist team
- Sportech'13** Inter-college Football (IIT Delhi) – 2nd position
- Antaragni'12** Inter-college Dance, IITK-B-team - 3rd place
- Takneek'12** : Robotics - 3rd; Morse-code quiz - 1st
- Inferno'12** (Fresher's) Football – Striker in Winning team
- Prayas Environment Quiz '08** (Surat District) – 3rd position (Represented J.H.Ambani School)
- Black-belt in Karate**, Shodan Ho in 2005