Shashwat Kumar

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EDUCATION

- **Indian Institute of Technology, Kharagpur**　　　　　　Kharagpur, India
  Bachelor of Technology, Department of Computer Science and Engineering　2010 – present
  CGPA: 8.68/10 (after 6 semesters)
- **Brij Bhushan Lal Public School**　　　　　　　　　　　　Bareilly, India
  Class XII, Central Board of Secondary Education　　　　　　　　　　　2009
  Performance: 88.00%
- **Brij Bhushan Lal Public School**　　　　　　　　　　　　Bareilly, India
  Class X, Central Board of Secondary Education　　　　　　　　　　　　2007
  Performance: 90.40%

RELEVANT COURSES

Algorithm I & II, Image Processing, Computational Number Theory, Artificial Intelligence, Machine Learning, Advanced Graph Theory, Compilers, Operating Systems, Database Management Systems, Computer Networks, Software Engineering, Computer Organization and Architechture, Programming and Data Structures, Probability and Statistics and core mathematics and computer science courses.

SUMMER INTERNSHIP

Title: ***Integration of Payment Gateway***　　　　　　　　　　　　May-July 2013
Directi Internet Solutions, Mumbai, India
Mentor: Mr. Kirit Parmar

- Integrated two payment gateways to reseller-end web interface of Directi using Java and JSP as server side technologies. First is an asynchronous payment gateway, **Alipay**, extensively used in China.
- Second is a synchronous payment gateway, **PayU.in**, for Indian resellers.
- The integration was tested and was successful after launching it on live servers.

PROJECTS

Title: ***Implementing Strategy layer for Robo-Soccer Environment***　　July 2013 - Present
Indian Institute of Technology Kharagpur　　　　　　　　　　　(Bachelor Thesis Project)
Guide: Prof. Jayanta Mukhopadhyay

- Working on development and design of strategy module for the small-sized wheeled robots to play soccer in dynamic environment.
- Implementing Machine Learning techniques on strategy module for automated selection, execution and evaluation of most appropriate plays according to current state of the game.

Title: ***Online Judge for Algorithmic Problems***　　　　　　　　March - April 2013
Indian Institute of Technology Kharagpur　　　　　　　　　　　　　(Term Project)
Guide: Prof. Pabitra Mitra
Source: https://github.com/shashwat001/evaluater

- Developed a web based application in PHP/MySql for automated evaluation of computer programs written in C/C++. The application takes submission from user as a solution to some problem and complies and executes on local system and show the result to the user. The application also facilitates user to submit his own problem and participate in a contest.

Title: ***Facebook Timeline Search Application***　　　　　　　　January - February 2013
Indian Institute of Technology Kharagpur　　　　　　　　　　　　　(Term Project)
Guide: Prof. Pabitra Mitra

- Development a web based application using **Facebook API** which provides search feature to user to search his facebook timeline.
- User can search posts, comments, likes, videos and photos for any particular word in any specific time period.

Title: ***Online Mess Portal***　　　　　　　　　　　　　　　　　(Self Project)

- Developed an Online Mess Portal to for online functioning of Hostel Mess, such as choice filling of food items for a week, calculation of mess bills of all the residents etc.
- The Portal was successfully implemented in Azad Hall in IIT Kharagpur among 700 residents.

Title: ***Time Management Software***   Feb-March 2012
Indian Institute of Technology Kharagpur   (Term Project)
Guide: Prof. R. Mall

- Developed Time management software with purpose for efficient time management for the executives of a company.
- Applications involved registering daily appointment, scheduling meetings by finding common slots automatically and providing statistics of each executive such as total man-hours devoted to work and total meetings attended.

SKILLS

- Operating Systems: Windows, Linux(Ubuntu)
- Programming Languages: C, C++, Java, Python and PHP
- Database Languages: SQL (SQLite, MySQL)
- Development Environments: Netbeans, Codelite, Microsoft Visual Studio.

POSITIONS OF RESPONSIBILITY

- **Opensoft Captain**, Azad Hall of Residence for session 2013-2014.
- **Artificial Intelligence Team head** of **Kharagpur RoboSoccer Student** Group (KRSSG), a student group working on a long-term project aiming to build autonomous soccer-playing robots with objective to participate in international RoboSoccer competitions FIRA and RoboCup.
- **General Secretary Web**, Azad Hall of Residence, IIT Kharagpur for the session 2012-2013.
- Secretary Web, Azad Hall of Residence, IIT Kharagpur for session 2011-2012.
    - Responsible for initiation for online mess in hostel.
    - Awarded Best Secretary of Azad Hall of Residence for the session Sep 2011 Apr 2012.
- Headed a workshop on developing robot to detect basic geometrical shapes through Image Processing in institute in Dec 2011.

AWARDS AND ACHIEVEMENTS

- Member of one of the two Indian Teams to participate in **FIRA RoboSoccer World Cup** held in Malaysia in August 2013. Became first Indian team to win a match in FIRA World Cup.
- One among two IIT Kharagpur teams to qualify for **ACM-ICPC Kharagpur regionals** in Dec 2012 and Amritapuri regionals in Oct 2013
- Winner of Marauders Map, in Kshitij 2013, a coding event to design algorithm to optimize cost in an NP-Hard problem similar to Travelling Salesman Problem.
- Won second prize in **Bitwise**, an online coding event organized by IIT Kharagpur in February 2012.
- Won Bronze in Negotiator, an Artificial Intelligence coding event in Kshitij 2011, in which three codes have to negotiate with each other and maximize their profit.
- Won Bronze in Nuke Clear event in Kshitij 2012. It was a robotics event based on Image Processing in which a bot has to discovered bomb and avoids non-bomb objects by identifying shapes and colors of some objects and finally diffuses all the bombs.
- **Ranked 12th** in India in **August Long Challenge**, an online programming competition, organized by Codechef in August 2012 and 10th in India in September 2013.
- Won third place in Exebit 2013, an Online coding event organized by IIT Madras in February 2013.

EXTRA-CURRICULAR ACTIVITIES

- Frequently participate in online algorithmic programming contests on Codechef , Codeforces and technological fests of Institutions.
- Problem setter for Hackerrank and algorithmic online contests in institute.
- Part of Athletics team under NSO (National Sports Organization).