PRITHWISH MUKHERJEE
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ACADEMIC DETAILS

B.Tech Degree, UG (4th year student), (2012 - 2016)
Computer Science and Engineering,
Indian Institute of Technology, Kharagpur,
Current CGPA : 9.75/10

Higher Secondary Examnination(10+2) (2011)
Nava Nalanda High School, Kolkata
PCM : 97%

Madhyamik Examnination(10th standard) (2009)
Nava Nalanda High School, Kolkata
Aggregate Score: 88.3%

TECHNICAL SKILLS

- **Programming**
  - Proficient : **C, C++, Java, Python**
  - Basic knowledge : **MySql, Pig, Hive, LaTeX, Hadoop, HTML, CSS, PHP, JavaScript**
- **Languages**
  - **English, Hindi, Bengali**
- **Platforms**
  - **Windows, Linux**

RELEVANT COURSES

- Programming and Data Structures, Algorithms-I, Software Engineering, Compilers, Computer Architecture, Algorithms-II, Database Management System, Operating Systems, Computer Networks, Information Retrieval, Machine Learning, Natural Language Processing, Artificial Intelligence, Social Computing, Formal Language and Automata, Theory of Computation, Complex Networks, Distributed Systems.

INTERNSHIP

- **Summer Internship at LinkedIn, Bangalore** (May,2015 - July,2015)
  - Improvement of model training performance and computation time for identifying spam.
  - Internal tool for identifying different categories of spam entering spam
  - Near duplicate spam detection
- **Simultaneous Localization and Mapping (SLAM)** (May,2014 - August, 2014)
  under Professor Anjan Sarkar,Department of Mathematics, IIT-Kharagpur
  - Proposed a novel approach for robot pose estimation combining the concepts of particle filter, loop closure and fuzzy landmarks.

Publication

- **Simulation study of a constant time hybrid approach for large scale terrain mapping using satellite stereo imagery** in **Robotics and Autonomous Systems, Elsevier**

ACADEMIC PROJECTS

- **Recommendation of Tags in Stackoverflow using Metapaths** *under Prof. Animesh Mukherjee and Prof. Pawan Goyal* (July, 2015 - May, 2016)
  - Proposing a novel approach for tag recommendation using metapaths on heterogeneous graphs.
- **Distributed Peer to Peer File System** *under Prof. Arobinda Gupta* (March, 2016 - April, 2016)
  - The terminal based system supports sharing and downloading of files and distributed searching of files among peers. Other aspects are hierarchial design (Super peer, peer and normal nodes), replication and fault-tolerance
- **Sampling methods for Data Matrix Reduction** *under Prof. Souranghshu Bhattacharya* (January, 2016 - April, 2016)
  - Several methods for sampling of data points have been implemented and their performance have been compared across different types of both synthetic and real datasets.
- **Natural Language Processing Term Project : Building a search and recommendation engine for latex equations.** *under Prof. Pawan Goyal* (September, 2015 - November, 2015)
  - Support latex and free form queries for searching mathematical equations.
  - Use context of equations for recommending.
- **Social Computing Term Project : Proposing a novel retweet model for mention recommendation in Twitter***under Prof. Animesh Mukherjee and Prof. Pawan Goyal* (August, 2015 - November, 2015)
  - Aims to improve information spread in Twitter by recommending users to be mentioned in a tweet to maximize popularity.
- **Information Retrieval Term Project : Implementing a Camera Search Engine.** *under Prof. Sudeshna Sarkar* (Mar 2015-Apr 2015)
  - Crawled Flipkart's website for Nikon Cameras and extracted features such as price, zoom, ratings, reviews, etc. Supported free from queries and predicted ranks for unrated cameras using sentiment analysis. Made a web interface for searching and displaying results.
- **Database Management Term Project : An International Cricket software** *under Prof. Pallab Dasgupta and Prof. Animesh Mukherjee* (March, 2015 - April, 2015)
  - Created the ER diagram for the database design. Enlisted the schemas after Normalization. Crawled espncricinfo website and populated a database with the crawled data and the GUI was made using Java Swing. Supported Range queries, country level statistical queries, ground level statistical queries, tournament level statistical queries, etc.
- **Networks Term Project : A peer-to-peer file sharing mechanism using Chord Protocol** *under Prof. Niloy Ganguly and Prof. Sandip Chakraborty (March 2015-April 2015)*
  - The server maintains a finger table and a list of (file name, IP in which the file is located) pairs. Implemented search for a file's location (IP and port) using hash of file name using Chord Protocol. Supports Search, Upload, Download.
- **Operating Systems Project : Create a shell** *under Prof. Bivas Mitra* (February 2015-March 2015)
  - Created the shell which supported basic commands like ls, ls -l, cmd, pwd, execution of processes (normal as well as background), cp. Supported redirection operators (< and >), piping (passing one's output as input to another).

- **Compilers Term Project : Create a Compiler for Tiny C language (a subset of C-language)** *under Prof. Partha Pratim Das* (August 2014-November 2014)
    - Used flex for lexical analysis. Used yacc for writing the grammar rules and actions.
- **Computer Organization and Architecture Term Project : Create a 32-bit RISC Processor deployed on a SPARTAN 3 FPGA Kit)** *under Prof. Ajit Pal* (August 2014-Nov 2014)
    - Created the design of the RISC processor and the operation codes for the various instructions supported. Used Verilog for implementing the processor. The instructions supported were all Arithmetic operations, branch statements, jump statements.
- **Software Engineering Term Project : Swimming Pool Management System** *under Prof. Partha Pratim Das* (March,2014 - April,2014)
    - Made a web based service for managing Swimming Pool booking, daily slots, membership request etc.

ACHIEVEMENTS

- Awarded Best B.Tech Project of passing out B.Tech Batch of 2016 of the Department of Computer Science and Engineering, IIT Kharagpur
- Selected for ACM ICPC 2015 Onsite Regionals in Amritapuri and Chennai.
- Ranked among **top 10** students of the IIT Kharagpur at the end of 1st year.
- Ranked among **top 20** participants from India in an Online Programming Contest (Codechef May Challenge, 2014).
- Ranked among **top 30** participants from India in Morgan Stanley Codeathon, 2015.
- Ranked **2nd in IBM Hackathon**, 2014 by making an android app "Suvidha" for health-care.
- Secured **all India rank of 815 (State rank - 25)** in **AIEEE(2012)** (now JEE Mains) among half a million candidates.
- Secured a **rank of 17 in WBJEE (2012)** among 1.5lakh candidates.
- Appeared in State Merit List for Higher Secondary Examination (10+2), and felicitated by Honourable Chief Minister of West Bengal.

OTHER ACTIVITIES

- Served as a NSS volunteer for 2 years.