

KRISHNA S. BAGADIA

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EDUCATION

Bachelor of Technology in Computer Science and Engineering Indian Institute of Technology, Kharagpur, CGPA: 9.37/10.00	August 2013 - May 2017(Expected)
Central Board of Secondary Education, Class XII Bakhshi's Sprindales Senior Secondary School, Kota, Rajasthan, 95%	March 2012 - April 2013
Central Board of Secondary Education, Class X Modern School, Koradi Road, Nagour, Maharashtra, CGPA: 10/10	March 2010 - April 2011

ACADEMIC COURSEWORK

(*)-ONGOING

Algorithms I and II	Discrete Structures	Software Engineering
Compilers	Switching Circuit and Logic Design	Probability and Statistics
Computer Organisation and Architecture	Operating Systems	Computer Networks
Database Management Systems	Formal Languages and Automata Theory	Hardware Security
Theory of Computation(*)	Machine Learning(*)	Advanced Graph Theory(*)
Selected Topics in Algorithm(*)	Parallel and Distributed Algorithms (*)	

SKILLS AND INTERESTS

Programming Languages	C#, Python, Java, C, C++, HTML, CSS, php, MYSQL
Software Skills	Xamarin and Xamarin Forms, Robot Operating System (ROS), Git, Solr, MIRACL, MongoDB
Libraries	OpenCV, PBC
OS	Windows, Linux, Android

PAPERS UNDER REVIEW

Exploiting Safe Error Based Leakage of RFID Authentication Protocol Using Hardware Trojan Horse

IEEE International Symposium on Hardware Oriented Security and Trust (HOST)
Authors: Krishna Bagadia, Urbi Chatterjee, Debapriya Basu Roy, Debdeep Mukhopadhyay, Rajat Subhra Chakraborty

INTERNSHIPS

On the Go Mobile Application for Digital Contracting

May 2016 - July 2016
Enterprise Commerce IT, Microsoft Research and Development, Hyderabad

- Built a cross-platform application to ease the process of contracting and enhance productivity by enabling push notifications.
- Also incorporated Machine Learning based statistics to keep the admins updated about contracts in process.
- My work was well appreciated and was offered a Pre-Placement Offer as a Full-Time Employee.
- Techs Used: C#, Xamarin Forms, GMS

Multilingual Enablement and Ranking

May 2015 - July-2015
National Digital Library, IIT Kharagpur, Sponsored: Ministry of Human Resource Development, Guide: Prof. Sudheshna Sarkar

- Developed a benchmark to evaluate various Ranking methods in searching. Also enabled Multilingualism in indexing and searching of documents which is essential in India.

- Techs Used: Java, Solr, DSpace

PROJECTS

Identification Security in Internet of Things

January 2016 - Present

Bachelor Thesis Project, Guide: Prof. Debdeep Mukhopadhyay

- Identified a security flaw in an Authentication Protocol, LCMQ, which authenticates an RFID tag from its reader. RFID tags are used to uniquely identify the devices. Currently working on fingerprinting mobile devices using accelerometer data.

Autonomous Ground Vehicle Research Group

January 2014 - Present

Software Team Member, Guide: Prof. Debashish Chakravarty

- Implemented the perception module to correctly identify the drivable region. This involves identifying obstacles and the lane markings.
- Incorporated Support Vector Machine based approach to separate the white lanes on grass backgrounds.
- Also helped the team to participate in Intelligent Ground Vehicle Competition held at Oakland University, Michigan in the years 2014, 2015, 2016.

Indic View

December 2014 - December 2015

Computer Vision Member, Guide: Prof. Pawan Goyal

- It is an application that will extract Indic content from images and convert it into English or other foreign languages. Contributed in making the image suitable for its extraction and further processing.

ACADEMIC PROJECTS

Twitter Analysis using Spark

March 2016 - April 2016

Database Management System Course Project, Guide: Prof. Pabitra Mitra

- Real time handling of twitter public stream using Apache Spark
- Identifying hashtags, mentions, favorites and other relevant data
- Implemented a RESTful API for querying such data
- Interactive visualization of co-occurring hashtags using vis.js

Understanding Product Review Characteristics in a Supply Driven Market Place

July 2015 -

November 2015

Social Computing Term Project, Guide: Prof. Pawan Goyal and Prof. Animesh Mukherjee

- Collected reviewers Data from Fiverr which acts as a supply driven market place.
- Implemented a review-graph based Review-Spammer Detection system to detect spam reviews using user-rating behavior and sentiment analysis
- Used LIWC tool for text analysis and evaluation of the results

Course Management Website

January 2016 - February 2016

Database Management System Course Project, Guide: Prof. Pabitra Mitra

- Created a web application where instructors offer courses with provision for assessments and performance tracking
- Used the MEAN (MongoDB, Express.js, Angular.js, Node.js) stack to make the web application
- Worked on the front end of the website, made the APIs and integrated the user interaction with the back end using Angular.js

EXTRA-CIRRICULAR ACTIVITIES

Among the 5 winners of 24 hours Google Hackathon organised by Datawind during Global Entrepreneurship Summit '14.

In top 1% in the National Standard Exams in Chemistry. 'A' certificate holder in National Cadet Corp