

Riya Bubna

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Flat 201 Ansal Krsna Apartments-2
Hosur Rd, Bengaluru, Karnataka - 560030

Education

Indian Institute Of Technology Kharagpur - Computer Science And Engineering 2017
BTech - Computer Science : **8.02**
Bodhichariya Senior Secondary School - CBSE(XII): **91.5%** 2013
St. Agnes' Convent School - ICSE(X) :**94%** 2011

Work Experience

Electronic Trading Compliance June 2017 - Present
Goldman Sachs, Bengaluru
-Full Time Employee

- Conceptualized, designed and verified the control framework present in electronic trading algorithms to ensure sanity of the trades for multiple products traded in Americas and Asia.
- Performed in-depth analysis of order flows across different types of business activities like market making, risk facilitation and agency trading.
- Analyzed the Post Trade Data where the data feed was collected from the firm, organized in Hbase tables and patterns were identified where the trades were breaching the thresholds (permitted by the firm or different exchanges). The price of the order, notional of the order, order to trade ratio, client exposure and firm exposure were some of the parameters on which the analysis was performed. Mentored an intern in the execution.

Harmonizing Wi-Fi Direct with Wi-Fi May 2016 - July 2016
Samsung Research And Development, Bengaluru
-Summer Intern under Vimal Bastin Edwin Joseph

- Harmonized the discovery and connection procedures of WiFi-Direct with that of WiFi. Modified the kernel code of the supplicant to broadcast and accept probe requests from all devices in a WiFi network, thereby increasing data transfer speed and decreasing power consumption.
- Received Pre-Placement Offer from Samsung R&D.

Route Choice Modeling May 2015 – July 2015
Nanyang Technological University, Singapore
- Research Assistant under Prof. Lam Siew Kei

- Developed and implemented a method to predict the route choice behavior using Path Size Logit Model using attributes including travel time, signal count and distance and then analysed the results using it.

Miscellaneous Projects

GoSafe

- Built an android application to suggest a safe route for navigation from one place to another.
- Helps users analyze the safety of an area by indicating occurrences of the following activities in a surrounding-theft/robbery, not well lit areas, harassment, accidents, presence of police, presence of CCTV cameras. This data is obtained by parsing local newspapers using Stanford NER API.
- Enables users to leave a feedback on the above parameters to help improve accuracy of the data.

Comment Analysis

- Built a model using Latent Dirichlet Allocation and similarity measure which could identify the exact points of drift in comments on a particular news article. Topics were found and mapped to comments and users to analyze the drift points.
- Paper published in IEEE IEMCON.

Steganography

- Compressed data using the standard zlib compression/decompression library which produced a high compression ratio for huge data. This data was encoded in images without distorting them.
- Created an algorithm to retrieve this compressed data from images and thereby obtain the actual data.

Web Development

- Built an online Teaching Website where students could study courses, teachers could post notes, assignments, quizzes and assess them. Database used:MongoDB(with Mongoose ODM), ExpressJS to create the API layer over the database.
- Built an online Airplane Management System which included both the administration and customer interface.
- Developed the complete front-end of www.robotix.in.

Robotics

- Built multiple autonomous robots which could follow humans, traverse a grid, detect metal and be controlled using hand gestures using sensors like accelerometer, flex sensor and IR transmitter-recievers.

Technical Skills

Computer Languages: C, C++, Python. **Familiar-** JAVA and \LaTeX
Web Development: HTML5, CSS, JavaScript, PHP, MySQL, MongoDB, Angular JavaScript
Libraries & Tools: Visual Studio, Eclipse, IntelliJ, Hadoop, NLTK, Arduino, AVR Studio, ROS, Gazebo.