

Shailja

EDUCATION

Degree/Examination	Institute	Year	Grades/Percentage
B Tech (Hons.), Electrical Engineering	IIT Kharagpur	2016	8.15
Class XII, CBSE	Delhi Public School, Ranchi	2011	88.6%
Class X, ICSE	Saint Joseph's School, Bhagalpur	2009	94.28%

INTERNSHIPS AND PROJECTS

Visiting Scientist in Computer Systems and Software Div., School of Science, Technology, Engineering and Mathematics, University of Washington (SEP-30 Nov, 2016)

- As a part of vision team, I worked on localisation and navigation of self driving tricycle in Elcano project.
- I have successfully developed fuzzy algorithm which is used to estimate the position of robot using GPS and dead reckoning. I have also developed the lane detection algorithm which gives the measurement of trike position from edge. Using this information, the correct position of trike can be found.
- I have also worked on optical odometer which gives 2D measurement of displacement using 30*30 pixels image and tracks trike motion. This method along with above algorithms will cover all the cases for estimating the position of trike.

Software Developer Intern in GreyOrange Robotics, Gurgaon (JUN-SEP 2016)

- Worked with server team and successfully implemented bin tag features for inventory management.
- Developed algorithm in Erlang to reduce time of processing the orders by implementing an idea of tagging the order. The orders will now be categorized according to their tags and single item orders will be stacked together in a bin to be processed as multi items orders.

Visual navigation of a mobile robot using monocular vision, Prof. J Mukhopadhyay, CSE Department (JUN 2015-MAY 2016)

- Developed an algorithm to create complete map of traversable region using monocular vision.
- Multiple images taken by simple webcam have been used for processing and potential destinations have been found which can be used for obstacle free navigation.
- Simple Linear Iterative Clustering (SLIC) was used for segmentation and thus reducing the memory and computation cost.
- A simple mapping technique using inverse perspective mapping and occupancy grids was presented, which is robust, and supports very fast updates.

Plots to Table Converter, OpenSoft Inter-hostel Competition, IIT Kharagpur

- Developed software for extracting information from plots in pdfs and creating tables. Set of scanned pages were used as input where each page has one or more plots embedded in text. Algorithms were developed to recognize plots, curves, captions and axis ranges. The individual curves extracted was read to get the corresponding x and y values. This software stood third in OpenSoft competition at IIT Kharagpur.

Summer Internship at PRICEWATERHOUSECOOPERS (PwC), INDIA (MAY-JUL 2015)

- Worked as a trainee in the technical consulting sub business unit of the advisory line of service in PricewaterhouseCoopers (PwC) Pvt. Ltd. and assisted Eastern Railway Employee Cooperative Bank (ERECB) with the process of implementing a relevant core banking system to facilitate sound business operations and growth.

POSITIONS OF RESPONSIBILITY

JULY, 2015-16	TEAM LEADER, OpenSoft Team I initiated and formed a team with 8 other undergraduate members and led the team to participate in the Inter-Hostel OpenSoft competition to win the Bronze award for our software.
APR, 2013-15	TEAM LEADER, Gopali Youth Welfare Society(GYWS) Led the team of GYWS, an NGO run by students and faculty of the college. I was responsible for planning different activities, managing the overall action plan and coordinating between different teams of the society.
JULY, 2014-16	MENTOR, Student Welfare Group(SWG) I was responsible for ensuring the academic and personal well being of three allotted men-tees.

COMPUTER SKILLS

Programming Languages :	C, C++, Python, JAVA, ERLANG, OpenCV, MATLAB, MySQL,.net
Programming IDEs	Atmel Studio, Arduino IDE
and other Software :	SQL Server, Microsoft Visio, Visual Studio, Toad Data Modeler, Excel, Word
Operating Systems :	Ubuntu, Windows

EXTRA CURRICULAR ACTIVITIES

- Worked as city representative and organized career counseling of over 300 students in Patna.
- Participated in three inter-hostel dramatics competition 2012-15.
- Worked as a tutor to help first year students in programming and data structure course.
- Won second prize in intra-hostel carom competition for freshers and was a part of volleyball team.

RELEVANT COURSES

	EXAM	GRADES	CREDIT HRS
B.Tech Project		Ex	4
Internship		A	2
Software Engineering*		A Ex	3 2
Design and Analysis of algorithm		Ex	4
Embedded Systems*		A A	3 2
Data Communication		A	3
Probability and Stochastic Processes		B	4
Digital Electronic Circuits*		A A	4 2
Programming and Data Structure*		A Ex	4 2
Digital Image Processing		B	4
Advance Digital Image Processing and Computer Vision		B	3

Grades: Ex-10/10, A-9/10, B-8/10, C-7/10

A star (*) indicates that the course included laboratory component