R Naresh

UNDERGRADUATE STUDENT AT INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR

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RESEARCH INTERESTS

- Complex and Social Networks

- Algorithms

- Artificial Intelligence

- Software Design

- Autonomous Vehicles

- Machine Learning

- Cryptography

EDUCATION

B.Tech and M.Tech (Dual Degree) in Computer Science and Engineering 2013-2018

Indian Institute of Technology, Kharagpur (EXPECTED)

CGPA: 7.02/10.0

Class XII, CENTRAL BOARD OF SECONDARY EDUCATION (CBSE) 2013

Maharishi Vidya Mandir SSS, Chennai

SCORE: 95.6%

Class X, CENTRAL BOARD OF SECONDARY EDUCATION (CBSE) 2001

Kendriya Vidyalaya Picket, Hyderabad

GPA: 10.0/10.0

ACADEMIC PROJECTS

Current Kraken 2.0 (AUTONOMOUS MOBILE ROBOT)

Group: Autonomous Ground Vehicle Research Group, IIT Kharagpur FEB 2015

Guide: Professor C. S. Kumar

- Developing a robust autonomous mobile robot to participate in the annual AUVSI ROBOSUB held in San Diego, California.

- ROS (Robot operating system) has been adopted for software development and synchronization ROS works on a publisher-subscriber based architecture by means of passing messages. Built different packages on the ROS stack.

Current Wikification via Link Co-occurrence FEB 2015 Guide: Professor Pawan Goyal

> - Wikification stands for the process of linking terms in a plain text document to Wikipedia articles which represent the correct meanings of the terms, can be thought

of as a generalized Word Sense Disambiguation problem.

DEVELOPMENT PROJECTS

FEB 2015

Advanced Graph Calculator

- Contributed to the development of an advanced graph calculator that plots the graph of multi-variable systems on the screen.
- The software was built on the PyQt framework using matplotlib and numpy. The PyQt framework was used for creating the GUI for the application. matplotlib was used for generating 2D/3D plots. numpy was used for explicitly generating domain for the functions to be plotted.

DEC 2014

Lane Follower robot

- Developed an autonomous lane following robot that uses advanced image processing techniques to detect the path in an IEEE certified workshop based on image processing organized by Technology Robotix Society, IIT Kharagpur

DEC 2013

PIR Based Line Follower

- Developed an autonomous line following robot using Atmel AVR microprocessor(Atmega16) in an IEEE certified workshop organized by Technology Robotix Scociety, IIT Kharagpur.

POSITIONS OF RESPONSIBILITY

Current

Senior Editor, Technology Literature Society, IIT Kharagpur

- Managing the content and design team of the society.
- Writer in the English Team, and working as a senior editor for all English publications.

Current

Secretary, CodeClub, IIT Kharagpur

- Part of the managing team leading a group of 25 students.
- Conducted several events, including Microsoft code.fun.do and BITWISE, the Annual Departmental Fest of the Department of Computer Science and Engineering, alongside several fortnightly competitive coding competitions within the campus.
- Designed the software for updating the leaderboards in real-time during competitions as a part of BITWISE $^\prime$ 15.

Apr 2015

Team Member, Google Students Club, IIT Kharagpur

- Organized multiple workshops and events, primarily focused on Android Development, in association with ${\sf Google}.$
- Conducted a workshop on the Polymer Project, which received high levels of participation.

Apr 2014

Co-ordinator, CodeClub, IIT Kharagpur

- Part of the organizing and sponsorship team for BITWISE '14.

COMPUTER SKILLS

PROFICIENT | C, C++, Python, Robot Operating System (ROS), Java, mySQL

DABBLED | HTML, CSS, Linux / Ubuntu, Git

Coursework

(T)HEORY AND (L)ABORATORY

- Programming and Data Structures (T/L)
- Discrete Structures
- Formal Languages and Automata Theory
- Algorithms-I (T/L)
- Software Engineering (T/L)
- Switching Circuits (T/L)