

Rajat Kumar Jenamani

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Academics

Current

2017-2021 Bachelor of Technology in Computer Science and Engineering, IIT Kharagpur

GPA **9.86/10.0** (Currently Pursuing)

2017 Higher Secondary School Certificate Examination (CBSE), **St. Columba's School**

GPA **97.4**%

Work Experience & Projects

Mar 18- | Arificial Intelligence Team Mer

Arificial Intelligence Team Member: Kharagpur RoboSoccer Research Group

https://github.com/KRSSG

Guide: Prof. Jayanta Mukhopadhyay

- Research Objective: To build and study cooperative multi-agent systems in dynamic adversarial environments.
- Regularly participates in RoboCup: An international scientific initiative with the goal to advance the state of the art of intelligent robots.
- Created a GUI that integrates the GrSim (Simulator for RoboSoccer SSL) and our fsm architecture based codebase using PyQt and ROS: https://github.com/RKJenamani/robocup-stp/tree/GUI

May 18 | RRT-Star with APF: Potential Functions based Sampling Heuristic For Optimal Path Planning

https://github.com/RKJenamani/RRT-Star-With-APF

- Implemented a Potential Function Based- RRT(Rapidly-exploring Random Trees)-Star algorithm for single-query path planning problems that incorporates the Artificial Potential Field algorithm in RRT*.

June 18 Role Assignment: A Module for automatic allocation of tasks to bots in a dynamic soccer game enviornment.

https://github.com/RKJenamani/Role-Assignment
- Implemented a methodology for multiagent robot coordination that consists of

- Implemented a methodology for multiagent robot coordination that consists of a Game Analyzer module that dynamically creates tasks that need to be solved in Robosoccer game situations together with an Assignment Module that automatically assigns tasks to agents optimally.

Scholastic Achievements

- IITJEE Mains, All India Rank 756: In top 0.07% amongst more than 11,00,000 students.
- IITJEE Advanced, All India Rank 2870: In top 1.5% amongst more than 2,00,000 students.
- National Entrance Screening Test, All India Rank 8: In top 0.016% amongst more than 80,000 students.
- **Kishore Vaigyanik Protsahan Yojana SA, All India Rank 298:** National Scholarship Examination held by Department of Science and Technology, Government of India.

Technical Skills

Programming Languages | C | C++ | Python

Libraries and Tools | OpenCV | PyQt | ROS | Numpy | Tensorflow

Field of Interest | Path Planning | Machine Learning | Image Processing | Algorithms

Activities & Leadership

- **Secretary, Code Club, IIT Kharagpur**: A society dedicated to garnering coding skills and shaping IIT Kharagpur's future in the coding arena. Organized up.AI 2018, West Bengal's largest Artificial Intelligence and Machine-Learning summit.
- Active Member, Quiz Club, IIT Kharagpur: Responsible for fostering participation and promoting quizzing in IIT Kharagpur.
- Former Member, Technology Robotix Society, IIT Kharagpur: Focal point for activities and projects related to robotics in IIT Kharagpur. Created a Lane Following Bot and organized Robotix 2018, one of India's largest robotics events.
- Former Member, Debating Society, St. Columba's School

Awards & Achievements

- Qualified for ACM ICPC 2018 Asia Amritapuri Regionals: Part of best ranked sophomore team from IIT Kharagpur.
- Best Fresher, Poles Apart, Kshitij 2018: Awarded 'Best Fresher' in a Robotics Event at Kshitij 2017, Asia's largest technomanagement fest.
- Participated in Inter-IIT Cultural Meet, 2017: Part of gold winning Quiz contingent.
- Awarded a certificate of 'STUDENT PAR EXCELLENCE' by Computer Science and Engineering Department, IIT Kharagpur

Relevant Coursework

(T)heory and (L)aboratory

Completed	Programming And Data Structures (T/L) Algorithms I (T/L) Discrete Structures (T) Symbolic
	Logic (T) Signals and Networks (T)
Currently Pursuing	Switching Circuits and Logic Design (T/L) Software Engineering (T/L) Probability and Statis-
	tics(T) Symbolic Logic (T) Formal Language and Automata Theory(T)

Online Coursework | Machine Learning by Andrew Ng (Coursera) | Deep Learning and Neural Networks (Coursera)