Rajendra singh

Roll Number : 111601017
B.Tech - Computer Science and Engineering
Indian Institute of Technology, Palakkad

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Degree/ Certificate	Institution Name	CGPA/Percentage	Year
B.Tech	Indian Institute of Technology, Palakkad	7.19 (Current)	2016 - Present
Class XII	Delhi Public School, Udaipur	89%	2016
Class X	Delhi Rajasthan Public School, Deogarh, Rajsamand	96%	2014

ELECTIVE COURSES:

- Reinforcement learning
- Deep learning
- Principle of machine learning
- Probability, Stochastic Process and Statistics
- Parallel programming
- Linear Algebra
- Embedded System
- English for professionals

EXPERIENCE:

- **Intern at UST Global,trivandrum, Kerala**
  May 2019 to Jul 2019
  Implemented SLAM and robotic manipulation on AGV. (https:// drive.google.com/ drive/ folders/1wVjh9FLUY39Wi0YJACsanDgIDSbuzgoN?usp=sharing)

- **Intern at Researchshala, Chandigarh**
  May 2018 to Jul 2018
  Worked on NLP techniques. I scraped, cleaned and processed data using various machine learning and statistical model to draw useful insights from data. (https:// drive.google.com/ drive/folders/15aYonk-xzocmY8xJICLzRDUNPFH65QO0?usp=sharing)

- **Summer intern under Vistaar Program at CFI, IIT Madras**
  May 2017 to Jun 2017
  Built Prusa i3 3D Printer and 3D Printed Robotic Arm, which was showcased during the CFI Open House 2017, at IIT Madras. (https://youtu.be/fiKWWNUrDsA)

PROJECTS:

- **Satellite Image Classification**
  Aug 2018 to Dec 2018
  Build CNN based model for satellite image classification of 9 categories, challenge was to train model model using mere 14 images. We got the overall accuracy of 71.85% . (https://github.com/iamrajee/Satellite_Image_Classfication)

- **Electrooculogram based Assistive Communication System**
  Prof. Vinod A Prasad, IIT Palakkad
  Jan 2019 to Apr 2019
  Developed an EOG based typing system that uses a virtual keyboard to assist individuals with motor neuron diseases to communicate. Eye saccades were tracked by acquiring signals from muscles surrounding the eye, conditioned using cleverly designed analog circuits. (https://github.com/iamrajee/bio_medical)

- **ROS based surveilling robot**
  Santhakumar Mohan, Associate Professor, IIT Palakkad
  Dec 2018 to Dec 2019
  Create ROS based surveilling all- terrain robot, which has features like face- detection, live stream, audio command and feedback. (https:// drive.google.com/ drive/ folders/1B5k8_0QPwT3smCKnMK9Dd8N9MWVTcHdE?usp=sharing)

- **IOT based Autonomous Farming**
  Dinesh S.P, Founder and CEO, TechMbed
  Nov 2017 to Dec 2017
  Built an IOT based autonomous farming under Makerthon 2017, Lema Labs, IIT Madras Research Park in 36 hours. Here we collect the various live data viz. moisture, temperature, humidity, illegal entry in farm and send them to the server and remotely moniter them. (https://youtu.be/5CcwcbmCqMU)

- **Automated Toilet Cleaning Robot**
  Divyansh Dubey, Academic secretary, IIT Palakkad, 2017-18
  Nov 2017 to Jan 2018
  Built Automated Toilet Cleaning Robot which cleans the floor of a toilet and picks the tissue papers and cleans the toilet seat. It is fully Autonomous and informs when a task is complete. Ranked 6th in Inter IIT Tech Meet 2017 -18, IIT Madras. (https://youtu.be/ZBkGvumVWXU)

TECHNICAL SKILLS:

- **Competitive Programming**
  I participated in various competitions and have strong hold on C++, Python and Java.

- **AI and Robotics**
  I'm highly enthusiatic about AI based intelligent robots. I'm skilled at ROS, RL, brain computer interface, embedded system, robotic manipulation and control. I competed in various national level competition.

- **Deep learning and data science**

I did my intern on NLP and did several projects around it and participated competions.

TRAINING AND WORKSHOP:

- **Machine Learning Workshop at Lema Labs, IIT Madras Research Park, Chennai**
  Mar 2018 to Apr 2018
- **IOT Workshop at Lema Labs, IIT Madras Research Park, Chennai**
  Dec 2017
- **Robotic Basics and Advanced Workshop at Lema Labs, IIT Madras Research Park, Chennai**
  Nov 2017 to Dec 2017

POSITIONS OF RESPONSIBILITY:

- Club head, Robotics club IIT Palakad
- Event cordinator, Rajasthan-Assam, EBSB, IIT Palakkad

ACHIEVEMENTS:

- **Smart India Hackerthon**
  Qualified for Round 2 for the task where we have fly swarm of two drones synchronously. (https:// drive.google.com/ drive/ folders/1GDZoG_kSkY84LPVvDzO02uAF9tA2QqHi? usp=sharing)
- **KVPY fellow**
  Selected for Kishore Vaigyanik Protsahan Yojana Fellowship, 2015-16. (https:// drive.google.com/file/d/1ZIaJEKHibr1t2OfR9aQwDpAnNR51S19n/view?usp=sharing)
- **Winner, Kaizen Robotics Program Competition, Lema labs**
  Win the competition by building six robots, in minimum time. (https:// drive.google.com/ file/ d/1dgV3DJ68teglLSyXVilVOronk1NKcFnr/view?usp=sharing)
- **In top 10 merit, Class X**
  In top 10, in Class 10, Board of Secondary Education, Rajasthan. (https:// drive.google.com/ drive/folders/1N93jNmOUJ6-T9axD03E4MJLQwrXGp6bc?usp=sharing)
- **Best Student Award 2014 – 15, Rajsamand District Private Education Committee**
  For excellent performance in class X. (https:// drive.google.com/ drive/ folders/1inaKcEJtnFTa7ik_Du4Cw1DRFSSmfd8P?usp=sharing)
- **Merit Scholarship Class X, Army Welfare Education Society**
  For extraordinary performance in academics. (https:// drive.google.com/ drive/ folders/1zsD7L8AlkvOhOWIrl1V5i0uKDsIg1T1I?usp=sharing)
- **1st rank, Udaipur Division Science Quiz 2014**
  Quiz was organised by Science and Technology Department, Rajasthan. (https:// drive.google.com/file/d/1eohg19dqForjnGMUlrHsLO7LbRISZ5_R/view?usp=sharing)

EXTRACURRICULAR ACTIVITIES:

- **Teaching**
  I like teaching and was volunteer to teach in Secondary School of Palakkad, under National Service Scheme(NSS), IIT Palakkad