Parismita Das

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INTEREST

 Application of Machine Learning and Statistical Modelling in the field of Robotics.

EDUCATION

IIT GUWAHATI | Btech in Engineering Physics   2015-19 | Guwahati, India
Minor in Electronics Communication Engineering

CHANDERBALA MODI ACADEMY | Senior Secondary, CBSE Board, Science   2015 | Gujrat, India

WORK EXPERIENCE

IRONA, AN AUTONOMOUS CLEANING ROBOT | Pobot Labs   July, 2019 - Present
- Computer vision module of Irona consist of static object detection and obstacle avoidance

MAXIMUM MARGIN INTERVAL TREES | The R Foundation for Statistical Computing   2018
Google Summer of Code Internship   [GSoc | Documentation | Github]
- Created R Package using Partykit, to implement Regression Tree, Pruning, Adaboost and Random Forest along with Cross-Validation.

TRADE INFORMATION MANAGEMENT SYSTEM | CitiCorp Services   May 2018 – July 2018
Software Engineering Intern
- Created Dashboard to help the makers and checkers for processing the trade related documentations using Angular and REST services.

RESEARCH EXPERIENCE

RECONSTRUCTION OF EM SHOWER AND π^0 IN THE DUNE ND ECAL   Aug 2017 – May 2019
Bachelor's Thesis, IIT Guwahati   Advisor: Prof. Bipul Bhuyan
- Reconstruction of gamma showers in neutral pion decay using Pattern Recognition and Machine Learning.   [Project Page]

PROJECTS

RAMAN, THE HUMANIOD | 4i Labs, IIT Guwahati   May 2017 – Present
- An Computer Vision and Speech aided Social Upper-Body Humanoid.   [Github | Website]

FAIR MINIBOT | The Autonomous Intelligent Bot   Jan 2017
- A Ball following bot using image processing and Robot Operating System (ROS)   [Github | Website]

HDLSS ANALYSIS OF GENE TO DETECT CANCER   Aug 2016 – Sept 2016
Coursework Project: Advance Machine Learning, IIT Guwahati
- Cancer state detection by High Dimension Low Sampling by reducing a 49K feature matrix to 100, using Glmnet.

OPEN SOURCE

THE R FOUNDATION FOR STATISTICAL COMPUTING | Interval Regression package MMIT   [Github]

CLOUDCV | EvalAI, A platform for hosting AI Challenges   [Github]

CONFERENCES

INDO-US NEUTRINO COLLABORATION MEETING IN TIFR   1-2 November, 2018

SKILLS

PROGRAMMING LANGUAGES   C++, C, Python, R, Android*, Java*
DATABASE MANAGEMENT   MySQL, Django
SOFTWARE PACKAGES   OpenCV, Theano, Keras, Tensorflow, Pytorch*, Geant4
MIDDLE-WARE   Robot Operating System (ROS)
WEB TECHNOLOGIES   HTML, CSS, JavaScript, Ajax, JQuery, PHP, Angular
* Elementary proficiency

COURSEWORK

COMPUTER SCIENCE   Advanced Machine learning (Deep Learning), Pattern Recognition and Machine Learning, Game Theory, Introduction to Computing
MATHEMATICS   Linear Algebra and Real Analysis, Differential Equations, Complex Analysis, Partial Differential Equations, Discrete Maths
ELECTRONICS   Signals and Systems, Digital Circuits, RTL and Microprocessors, Digital Signal Processing, Communications
PHYSICS   Computational Physics, Quantum Information and Cryptography, Cosmology, Quantum Optics
OTHERS   Human Resource Management

POSITION OF RESPONSIBILITY

HEAD OF PROJECT RAMAN, THE HUMANOID, ROBOTICS CLUB, 4I LABS, IIT-GUWAHATI. 2018
HEAD OF COMPUTER VISION TEAM OF HUMANOID, ROBOTICS CLUB, 4I LABS, IIT-GUWAHATI. 2017
PROJECT MANAGER AT ROBOTICS CLUB, IIT-GUWAHATI. 2017

EXTRA CURRICULAR

59/109 POSITION IN OPEN IMAGE 2019 - VRD (ONGOING)