Krishnakant Saboo

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OBJECTIVE

Apply Machine Learning and data analytics on big-data to build products.

EDUCATION

UIUC

PhD in Electrical and Computer Engineering
Expected May 2021
Champaign, IL
GPA: 3.89 / 4

IIT BOMBAY

B.Tech + M.Tech
Electrical Engineering
Graduated July 2016
Bombay, India
Cum. GPA: 9.02 / 10

COURSEWORK

GRADUATE

Pattern Recognition
Computer System Analysis
Computer System Engineering

UNDERGRADUATE

Adaptive Signal Processing
Markov Chains and Queuing
Optimization
Neuromorphic Engineering
Speech Processing
Healthtech Innovation and Design

Teaching Asst. Courses :-
Adaptive Signal Processing
Signals and Systems

SKILLS

PROGRAMMING

C • C++ • R • MATLAB

PROJECTS

INDEX POLICY FOR DYNAMIC PRICING | IIT Bombay

Jan 2016 – Jun 2016 | Prof. Vivek Borkar | Mumbai, India

- Cast the resource allocation and pricing problem in a cloud computing system in the Multiarmed Bandit framework
- Proved Whittle indexability and demonstrated the fairness of Whittle pricing policy compared to other pricing policies

GRAPH BASED SEMI-SUPERVISED LEARNING | IIT Bombay

Jul 2015 – Jun 2016 | Prof. Vivek Borkar | Mumbai, India

- Developed a distributed and asynchronous algorithm for graph based semi-supervised learning
- Tested its performance on real and synthetic graphs; bounded classification error within 13% for dynamic graphs

CLASSIFICATION USING ADAPTIVE SNN | IIT Bombay

Dec 2014 – Feb 2015 | Prof. Bipin Rajendran | Mumbai, India

- Designed a 4-layer spiking neural network with spike timing dependent plasticity to classify musical compositions with an accuracy of 95.4%

GESTURE RECOGNITION USING FMCW RADAR | Texas Instr.

May 2014 - Jul 2014 | Mr. Sandeep Rao | Bangalore, India

- Developed a gesture recognition algorithm for hand gestures performed in front of multi-radar chip
- Achieved a recognition of 87% within 1m and 84% within 3m of the chip

PUBLICATIONS AND PATENTS

- K. Avrachenkov, V.S. Borkar and K. Saboo, "Distributed and Asynchronous Methods for Semi-Supervised Learning", Workshop on Algorithms and Models for Web Graphs, 2016.
- V.S. Borkar, Ravikumar K., K. Saboo, "An index policy for dynamic pricing in cloud computing under price commitments", Applicationes Mathematicae Journal. Accepted 2017.
- C. Prasad N, K. Saboo and B. Rajendran, "Composer Classification based on Temporal Coding in Adaptive Spiking Neural Networks", International Joint Conference on Neural Networks, 2015.
- K. Saboo and S. Rao, "Gesture Recognition using Frequency Modulated Continuous Wave (FMCW) Radar with low angle resolution", U.S. Patent Application 14,633,684, filed February 2015. Patent pending.

HONORS AND AWARDS

2016   Undergraduate Research Award for outstanding research contribution
2015   Institute Academic Prize for ranking 2nd in Dual Degree EE Program
2015   Recognition for contribution as Institute Student Mentor, IIT Bombay
2011   Gold medallist in Indian National Chemistry Olympiad