Jayanth S

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Education

Indian Institute of Technology, Dharwad **2020 – 2022**
M.S(Research) in Electrical Engineering, CGPA = 9.17/10 *Dharwad, Karnataka*
Thesis supervisor : Rajshekhar V Bhat

PES Institute of Technology, Bangalore South Campus **2015 – 2019**
B.E. in Electronics and Communication Engineering, CGPA = 8.16/10 *Bangalore, Karnataka*

Relevant Coursework

- Probability and Stochastic Processes
- Linear Algebra
- Convex Optimization
- Statistical Pattern Recognition
- Deep Learning
- Wireless Communication
- Reinforcement Learning

Research Interests

- Wireless Communication
- Reinforcement Learning
- Online Learning (Bandit Algorithms)
- Deep Learning

Experience

Evobi Automations Pvt Ltd (Bibox) **January 2019 – February 2019**
Embedded Stack Developer Intern *Bangalore, Karnataka*

- Developed library files for interfacing different sensors with Bibox Hornbill board which had Nordic semiconductor's nRF51822 as micro-controller.

Teaching Assistant

- Had been a teaching assistant for Mathematics for Data Science, Probability models and applications, and Optimization Theory and Algorithms courses.

Projects

Resource Allocation For Overlay Device To Device (D2D) Communication | *Matlab* **2019**

- In this work, we implemented an algorithm called as Largest Interference Aggregated First (LIFA) to effectively utilize the resources available for device to device communication.

Model Free Training for End-to-End Communication Systems | *Python* **Jan 2022**

- In this work, I implemented model based and model free auto-encoder based end-to-end communication system for AWGN and Rayleigh Block Fading (RBF) channels as given in the paper: Fayçal Ait Aoudia and Jakob Hoydis, "Model-Free Training of End-to-End Communication Systems" .

Technical Skills

Languages: Python, C/C++, **Packages/Frameworks used** : NumPy, Tensorflow, **Software Tools**: Matlab, Latex

Publications

1. **Jayanth S** and Rajshekhar V Bhat (IIT Dharwad), "Age of Processed Information (AoPI) minimization with power constraint in fading multiple access channels", accepted to IEEE ICC 2022.
   - We formulated a long-term average AoPI minimization problem across the users subject to average power constraints. We solved the problem using Constrained Markov Decision Process (CMDP) and we also obtained low-complexity solution using Drift-plus-penalty method based on Lyapunov optimization.
2. Gagan G B, **Jayanth S** and Rajshekhar V Bhat (IIT Dharwad), "Age of Information Minimization with Power and Distortion Constraints in Multiple Access Channels", IEEE WiOpt, 2021.
   - We formulated a long-term average age of information (AoI) minimization problem across the users subject to average power and distortion constraints. We solved the problem using Constrained Markov Decision Process (CMDP) and also proposed a low-complexity solution using stationary randomized policy.

Extra Course Work

- Deep Learning Specialization- Coursera
- Reinforcement Learning Specialization - Coursera