Pankayaraj . P BSc Computer Engineering

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Employment History

2019-2019 - 5 months

Research Assistant Intern SLTC, QBITS Lab.
- As a first author published an ECC2020 paper
- As a first author another work is under review at IEEE CDC 2020

Education

2015-2020 **B.Sc. Computer Engineering University of Peradeniya, Sri Lanka** 3.4 out of 4 GPA

2002-2014 **Sri Koneshwara Hindu Colleage Trincomalee**.

Research Publications

Conference Proceedings

1. **Pankayaraj. P**, & Maithripala, D. H. S. (2020). A decentralized communication policy for multi agent multi armed bandit problems, In ***European Control Conference 2020***.
2. **Pankayaraj P**, Maithripala, D. H. S., & Berg, J. M. (2020). A decentralized policy with logarithmic regret for a class of multi-agent multi-armed bandit problems with option unavailability constraints and stochastic communication protocols [**Accepted for Presentation** in the **59th IEEE Conference on Decision and Control**], In *59th Ieee Conference on Decision and Control*.
3. **Pankayaraj P**, Sumanasekera, Y., Samarasinghe, C., Elkaduwe, D., Jayasinghe, U., & Maithripala, D. H. S. (2020). Multi-agent reinforcement learning in sparsely connected cooperative environments[awarded the **Best Research Paper**], In *Escape 2020*.

Projects

2020 **Multi-Agent Reinforcement Learning in Sparsely Connected Cooperative Environments** Dealing with the sparse connectivity in multi agent settings.
Report https://drive.google.com/drive/folders/1Jtl88fSC-4xC1kBv4ZEm2rQhojSanBDz

2019 **Reinforcement Learning Based Autonomous Quadcopter Control**
Using Reinforcement Learning algorithms to make Quadcopter control decisions on an AirSim simulated environment

REPORT: https://drive.google.com/drive/folders/16Ej8XL4SRrtHl58FsMMnYDaD5WYWruF9

2018 **A user recommendation method using Bayesian Reinforcement Learning**
Github Link : https://github.com/punk95/sitnshop/tree/BackEndAlgorithm
REPORT : https://drive.google.com/drive/folders/19Sq1UExeANUWQGGVf8EXBCrPRntAFvaF

Projects (continued)

2017 **Creating a python based library with a Tensor flow back end for Bayesian Optimization and Multi Arm Bandit Problem**
GitHub Link : https://github.com/punk95/Multi-Arm-Bandit-Library
PyPi link : https://pypi.python.org/pypi/mabandit/1.3
REPORT:https://drive.google.com/drive/folders/1H2Pcbfj825LPbYjo3rnKlY0lgRQCFwXb

2018 **SitnShop– An Advertising platform for shops** An advertising platform for anykind of shop and it also helps the customers of the shops to easily find related shops.
Github Link : https://github.com/punk95/sitnshop/
REPORT : https://drive.google.com/drive/folders/1ZcsJkFPDCJhvh8kOyt0LjnxBkJ1cAgaB

Infant Sleep Apnea detection system : A portable device that can detect Sleep Apnea condition in infants using techniques such as Optical flow, Edge detection, Fourier analysis with python, Raspberry pi.
Github Link : https://github.com/punk95/Sleep_Apnea_Detection
REPORT:https://drive.google.com/drive/folders/17fLXhj1uxl5MuqNqEM46_tYuRsWoXC2Z

Making a central server for the sleep apnea problem
Technologies : Python, Django, Django rest framework, HTML/CSS,JS
Github Link: https://github.com/punk95/Django_Server_Sleep_Apnea

2017 **ExpertMiner :**
Earth resource location prediction using Hyper Spectral Images from satellites Techniques : Pattern Recognition, Correlation Mapping
Github Link : https://github.com/punk95/HSI_Project

Skills

Languages	Strong reading, writing and speaking competencies for English, Tamil.
Coding	Python , Java, , LaTeX, C++, C, Matlab
Libraries	Tensorflow, Pytorch, Kivy, Numpy, Scipy
Web Dev	Dijango
Intrested Fields	Reinforcement Learning, Deep Learning, Machine Learning, Statistics and Probability, Bayesian Models, Numerical Computation, Algorithmic Problem Solving, Web and GUI development
Misc.	Academic research

Miscellaneous Experience

Awards and Achievements

2017 **ACES Hackathon 2017(Intra university hackathon)** : Project:Expert miner: Softwaresection winners, Best idea of the competition

2016 **ACES Coders v6.0** (Inter university programming competition):Country Rank : 4th

Miscellaneous Experience (continued)

- **IEEExtreme 10.0 Programming competition**(24 hour Global Programming competition
  Country Rank: 38th
  World Rank: 330th

References

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