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 published an IEEE CDC 2020 paper

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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