SIRI RAAVI

MACHINE LEARNING | DATA SCIENCE

CONTACT

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PROFILE

Data Science graduate with 4 years of work experience and in-depth knowledge of machine learning and programming.

EDUCATION

2018 **GPA: 3.76/4.00**

UNIVERSITY OF HOUSTON [HOUSTON, TX]

Master of Science in Computer and Systems Engineering

2014 **GPA: 3.67/4.00**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY [HYDERABAD, IN]

Bachelor of Technology in Electrical and Electronics Engineering

TECHNICAL SKILLS

- Machine Learning scikit-learn, NLTK, Spark MLlib, numpy, scipy, pandas, matplotlib
- LSTM, CNN, tensorflow, theano, tflearn, lasagne
- Software Engineering
- Data Visualization
- Probability and Statistics
- Python, C/ C++, SQL, Linux, HTML, CSS, MATLAB
- AWS, Azure, Git, SVN, Excel

EXPERIENCE

2017 - PRESENT

Research Assistant, HULA Lab | University of Houston

- Developed a framework to train **neural networks with memory capacity** in classifying images using **small number of samples** as part of my Master Thesis.
- Trained **Memory Augmented neural network** on **MNIST data** with few samples in **One vs All approach** for **100,000 episodes** and achieved highest accuracy of **96.2%** even with the presence of label noise.
- Collaborated in design and development of Generative adversarial model to retrieve chest radiographs for radiology toolkit.
- Established a theory on lower accuracies of radiologist diagnosis.

2014 – 2016

Application Software Developer | NTT DATA, India

- Managed the access to users and ensured **optimal performance of databases** and their associated objects by executing various batch jobs.
- Streamlined major implementations like performing conversions and production issuances.
- Developed an internal tool automating few tasks **reducing the manual effort and time spent** on the task by **85%**.
- Boosted future endeavors by writing instructions & reference or maintenance manuals for translation team.

PROJECTS

Radiologist Gaze

- Collaborated with radiologists from M.D. Anderson Cancer Center to collect and analyze the gaze patterns of radiographs. Gaze features were extracted using clustering and warping methods. Developed a **random forest** model with **85% accuracy** to capture the cognitive components of the radiological processes such as visual, attentional and decision.

ECSSGAN

- Designed a **generative adversarial** machine learning model based on the **SALGAN** model and used it to detect the objects and generate their **saliency maps,** especially of the images that included depth information of extended complexity scenes using machine learning framework **theano** and **Python**.

Gender Classification from blog text

- Developed a toolbox to identify the **gender** of the author of the text. The **tool box** was evaluated to predict the gender with **82% accurate results**.