ARNAV KUNDU

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SUMMARY

Graduate student at Texas A&M University with experience in machine learning, computer vision and speech recognition looking for full time roles for August 2019

EMPLOYMENT

Nvidia Corporation

Deep Learning Research Intern *Jan 2019 – Apr 2019*

- Research and development of speech de-noising mechanisms for ambient noise removal to improve speech recognition methods by 2% using semantic segmentation concepts
- Improved the state of the art on noisy dataset, both in speed and accuracy using better regularization and mixed precision training with greedy decoding

Apple Inc.

Machine Learning and Data Science Intern *May 2018 – Aug 2018*

- Researched and developed deep learning solutions for predictive anomaly detection, forecasting, clustering and correlating millions of rows of time-series data in minutes against unsupervised methods which take hours **(3 patents)**
- Reduced the training time of deep neural network models by 90% by implementing distributed Tensor-Flow framework on Apple infrastructure
- Facilitated use of machine learning for SREs by developing an automated platform to train and deploy machine learning models on a given stream or set of data, without having to code

Citigroup Inc.

Data Scientist and Application Developer *July 2015 – July 2017*

- Increased customer base by 3% every month by analyzing and building statistical models on market behavior and social trends using semantic analysis on social network data
- Composed marketing campaigns for Citibank Thailand by applying time-series forecasting and classification algorithms like SVM and regression on spend patterns and other customer demographics
- Designed a platform for creating online dash-boards that updated marketing teams with their portfolios
- Awarded the ARC Award in 2016 for developing better campaigns that increased campaign conversion rate by 12%

PROJECTS

Anomaly detection in dense network using Deep Neural Networks (Thesis)

- Developing a cyber-threat monitoring system using a deep neural network based anomaly detection system.

Image Enhancement using GANs

- Developed a mechanism for super resolution, color and texture enhancement on low resolution images

Robust Adversarial Reinforcement Learning

- Developing an architecture to introduce adversarial attacks on an agent to make its policy robust.

SKILLS

Machine Learning - Classification and Regression, Clustering**,** Time-series, dimensionality reduction, Neural Networks, Tensor-Flow, Keras, PyTorch, Distributed Training and model deployment pipelines

Programming languages – C++, Java, Python (*numpy, pandas, scikit-learn, scipy, Flask, OpenAI Gym*), Cassandra, SQL, MATLAB.

Misc - Google Cloud, Docker, ETL design, A/B Testing

EDUCATION

Texas A&M University, College Station, TX *Aug -2019*

Masters of Electrical and Computer Engineering, *GPA- 3.75*

Courses - Machine Learning, Data Mining, Convex Optimization, Stochastic Systems, Deep Learning, Reinforcement Learning

Publications: Deep Neural Network Based Non-Intrusive Load Status Recognition

National Institute of Technology Karnataka, Surathkal, India *May -2015*

Bachelor of Electrical and Electronics Engineering, GPA – 8.4