Sravya Amudapuram

https://github.com/amuda005

EDUCATION

University of Minnesota, Twin Cities

Minneapolis, U.S.

Email: amuda005@umn.edu

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Master's in Computer Science; 3.95/4.0, Thesis: Evaluation of algorithms under data-reuse Sep'18 - May'20(Expected)

Indian Institute of Technology

Guwahati, India

Bachelor of Technology in Mathematics and Computing

Jul. 2011 - Jun. 2015

Programming Skills

- Languages: Java(Advanced), C/C++(Advanced), Python(Advanced), Shell Scripting, R(Intermediate)
- Technologies: TensorFlow, Keras, PyTorch, OpenAI Gym, Kafka, Hadoop, AWS, Spring, InfluxDB, MySQL
- Relevant Coursework: Machine Learning for Systems, Intro to Data Mining, Recommender Systems, Machine Learning, Distributed Systems

Academic Projects

- Speech Emotion Analysis (Graduate Research Assistant): Built an interactive application to collect raw audio data for emotion analysis. Implemented a RNN(used CNNs to tune features) with RAVDESS data as training set to classify 8 different emotions with 64% accuracy
- Denoising AutoEncoder: Developed a model using PyTorch that denoises images using an auto encoder. It denoises MNIST images with gaussian noise to human-readable images. Also, implemented a Variational AutoEncoder with fully connected layers to denoise MNIST images.
- **Histopathologic Cancer Detection**: Built a binary classifier that detects a tumor in the given image with AUROC score of .96. Implemented a model with weights initialized from transfer learning of Xception and NASNet
- Reinforcement learning for dynamic database indexing [OpenAI Gym, Python, Deep-Q learning]: Proof of concept to formulate database indexing as a game. Formulated Deep-Q learning algorithm to make key look-up faster and adapt to dynamic data distribution
- Movie Recommender: Built a neural network recommender for movies, using keras on the MovieLens 1M dataset which strives to minimize RMSE. This model beats the FunkSVD, ALS recommender performance.
- Routing in ad-hoc Cognitive Radio Networks using game theory: Analyzed the routing challenges incurred by spectrum mobility in ad-hoc cognitive radio networks. Designed a routing protocol using game theory to address trade-off between routing and switching costs in such networks

Experience

HPE Nimble Storage

Durham, U.S.

Software Developer Intern

May 2019 - Aug 2019

• Monitoring & Analytics Platform: Designed a prototype that collects data from Proxies, Switches, Storage Arrays, AWS and Azure VMs and stores in a time-series DB for dashboards and real-time alerting

Visa Inc

Bangalore, India

Senior Software Engineer

Jul 2015 - July 2018

- Search Platform: Developed a Search Platform, a multi-threaded, high-throughput and reliable Java service to connect Kafka and Solr for faster querying in real time, using Apache Solr, Kafka, and Zookeeper
- **mVisa**: Built a completely configurable and customizable mobile SDK to help maintain uniform user interface across mVisa(Scan QR & Pay) enabled applications

Samsung Research and Development

Bangalore, India

Student Trainee

May 2014 - Jul 2014

• Developed a platform-independent client manager interface to pipeline the communication between clients and server to maintain a uniform interface for applications running on Android and Tizen

ACHIEVEMENTS

- Recipient of Merit Cum Means scholarship of IIT Guwahati(2011-2015)
- Secured 99.4 percentile among 500k engineering aspirants in India(2011)