Sravya Amudapuram
https://github.com/amuda005

Email : amuda005@umn.edu
Mobile : +1-612-757-2858

Education

- **University of Minnesota, Twin Cities** — Minneapolis, U.S
  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)