Achyutha Sreenivasa Bharadwaj

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EDUCATION

Arizona State University   **Tempe, AZ**
Master of Computer Science (MCS) GPA: 3.28/4.0   *Expected Graduation: May 2019*

EXPERIENCE

VMware   **Atlanta, Georgia**
Member of Technical Staff - Intern   *May 2018 – current*
- Working on an Engineering Project to Modularize the code to increase maintainability and robustness by reducing dependencies between Business, Utility and Data Provider layers of the VMware Workspace One code base.

VMware Airwatch   **Bangalore, India**
Member of Technical Staff   *July 2014 – May 2017*
- Worked as ASP .NET Full stack Web developer as a part of Windows Mobile device Management team.
- Developed products that provide the ability to quickly enroll Windows devices in an enterprise environment, allow System administrators of the enterprise to authorize and authenticate devices with certificates, configure and update device settings over-the-air, enforce security policies and compliance, secure mobile access to corporate resources, and remotely lock and wipe managed devices.

PATENT

Operating System Update Management for Enrolled devices   *Dec 2016*
- Filed patent "Operating System Update Management for Enrolled devices" as part of VMWare patent program on December 16, 2016.

SPECIALTIES

Languages: C, C++, C#, Java, ASP.NET, SQL Server, Python, Matlab
Web Programming: PHP, HTML, XML, XHTML, CSS, Javascript, Jquery, AJAX, ASP.NET.
Software Packages: SQL Server, Visual Studio, Matlab, Android Studio, PyCharm, LaTeX

PROJECTS

Analysis of Proximal Policy Optimization Algorithms   *Jan 2018 - May 2018*
- The goal of this project is to build an agent that learns how to play Pacman game on its own using a Reinforcement learning strategy known as Proximal Policy Optimization.
- We explored different Reinforcement Learning algorithms based on the baseline code shared by OpenAI gym environment and its observation/reward model and compared the results with the PPO algorithm.
- We introduced some new tricks to improve the performance, like reducing the size of the image by Gray-scaling and Max-pooling before predicting the next action, Implementing concepts like Random Walk from Page Rank algorithms also seemed to help learn faster.
- We found that PPO algorithm by clipping the gradients, helps maintain a constant improvement in the policy learned and reward received when compared to other Reinforcement Learning algorithms.

Stock Market Prediction using Sentiment Analysis of Tweets   *Aug 2017 – Dec 2017*
- Implemented web crawlers to extract Tweet data and Stock Market Price.
- NLP techniques like Tokenization, Stop-word-removal, Stemming are used to perform language modeling and Sentiment Analysis on Twitter data.
- Machine learning techniques like Support Vector Machines, Logistic Regression and Multi-layer Perceptron are used on the classified sentiment data along with stock market price to predict the trends of stock market price.
- The ML models predicted the prices most accurately when Topic Modeling was used. Considering past 5 days of tweet sentiments, we were able to predict change in stock prices with close to 70% accuracy.

Movie Recommendation System   *Aug 2017 – Dec 2017*
- Implemented a Personalized Movie Recommendation sys using collaborative filtering/probabilistic relevance feedback and a movie classification system using r- nearest neighbor, decision tree, random forest, n-ary SVM, LSH using database from IMDB-MovieLens with PCA, SVD, LDA and CPD models.