Sreenivasan Ramesh

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Education

- **Arizona State University** — *Tempe, AZ*
  Master of Science in Computer Science; GPA: 3.7 — *August 2019 – Present*
- **PES Institute of Technology** — *Bangalore, India*
  Bachelor of Engineering in Computer Science; First Class with Distinction — *August 2013 – July 2017*

***Relevant Subjects**: Data Structures, Algorithms, Deep Learning, Data Intensive Systems for Machine Learning, Artificial Intelligence, Software Engineering, Data Mining, Natural Language Processing*

Experience

- **Sprinklr** — *Bangalore, India*
  Software Engineer — *July 2017 – July 2019*
  - Designed an **auto-scaling framework** based on custom metrics and historical data, which helped to significantly reduce operational costs and minimize application latency.
  - Built a framework that uses **Vector Auto Regression** to find seasonality and trends on multi-variate, data which was utilized for **alert prediction, anomaly detection, and capacity planning**.
  - Developed a real-time resource management web application, and built a CI/CD pipeline, to run automated tests ensuring code quality, and enabling automated deployments across multiple environments.
  - Mentored 4 new employees, helped them set goals and oversaw their progress.
  - Awarded employee of the quarter, Q4 2018.
- **Sprinklr** — *Bangalore, India*
  Software Engineering Intern — *March 2017 – June 2017*
  - Proposed, prototyped and built multiple **data visualization** components for heterogeneous data collected from multiple data stores.
  - Implemented a Cost Dashboard to give granular details of cost allocation for 1400+ Sprinklr partners.

Projects

- **Meal Detection for Insulin Administration**: Analyzed data from glucose monitors to detect if a person is having a meal, in order to administer insulin. We extracted features on CGM data and used a voting classifier with Extremely Randomized Trees, Random Forests and XGBoost to achieve an accuracy of 81%.
- **Music Generation**: Generated classical piano scores used Attention networks and LSTM variants.
- **Short-Term Trend Forecasting**: Used Asynchronous Adaptive Boosting with Ensemble Decision Trees to accurately predict the short-term trend of stock prices using a combination of technical indicators and sentiment from financial articles as features and achieved an accuracy of 78%.
- **Autonomous Inventory Management Robot using Reinforcement Learning**: Used an epsilon-greedy q learning approach to plan for a robot to pick up objects and pace them in their correct locations, in a fully observable static environment.
- **Movie Recommendation**: Implemented a recommendation engine, with a User Based Collaborative Filtering algorithm, to dynamically recommend a set of movies based on user similarity score.
- **Sudoku Solver**: Captured an image and employed Hough Line Transforms to detect the Sudoku grid, SVM for character recognition, and a backtracking algorithm to solve the Sudoku grid.

Skillset

- **Languages**: Python, Java, Bash/Shell, Perl, C/C++, C#, PHP, Ansible
- **Frameworks**: Tensorflow Core, Keras, PyTorch, Scikit-Learn, Pandas, Tox, Flask, ROS, Gazebo
- **Databases**: MySQL, MongoDB, ElasticSearch
- **Web Technologies**: Javascript, HTML, CSS, jQuery, HTTP, JSON, Rest API
- **Others**: AWS, Git, JIRA, Jenkins, CI/CD, Kafka, Docker, Kibana, InfluxDB, Graylog, OAuth