# SRIRAM RAVINDRAN

## Looking for Data Science/Data Engineer/ML Engineer roles - Starting April 2018

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#### **EDUCATION**

## University of California, San Diego

Master of Science in Computer Science, GPA: 3.7

Sep '16 - Present

#### Indian Institute of Technology (IIT) Indore

Bachelor of Technology (Computer Science), Major GPA: 9.54/10

Jul '12 - May '16

#### **WORK EXPERIENCE**

### Software Engineering Intern, Yahoo Inc., Sunnyvale

June '17 - Sep '17

- Decreased autocomplete speed on Yahoo Ads Platform by up to 13x using Elasticsearch APIs.
- Extended the platform & productionized 3 REST APIs to resolve search requests.

# Graduate Student Researcher, UC San Diego

Sept '16 - Present

- Exploring the potential of deep learning for single trial EEG classification.
- Designed a novel 3D Convolutional Neural Network (CNN)+LSTM model that outperforms LDA by 6%.

## **Data Science Intern, Oracle Bangalore**

May '15 - Nov '15

- Designed a recommender system for unsold products using Hadoop, Hive and Mahout.
- Targeted customers based on location and provided basic analytics.

#### **PROJECTS**

## Scalable neural networks with Apache Spark [Scala]

- Implemented ELM based one class classifier on Spark for use with large datasets (3-4 GB).
- · Achieved 85% test accuracy on breast cancer data using only positive samples.

### User identification using Keystroke dynamics [Best paper - ICCIC 2015]

· Achieved 92% accuracy for keystroke based identification system using novel ELM neural network model.

## **Neural style transfer using Generative Neural Networks [Keras]**

- Designed and trained a novel offline artistic style transfer mechanism using Generative Models.
- Increased style transfer speed by over 600%.

# Yelp rating prediction. [Scikit-learn] [Python]

- Engineered features using text mining techniques and performed feature selection.
- · Achieved 0.82 RMSE using Latent Dirichlet Allocation (LDA) and Random Forest, SVMs and Decision Trees.

# Capsule Networks for digit classification (MNIST) [PyTorch]

- Implemented 'Dynamic routing through capsules' by S. Sabour, N. Frosst, G. Hinton.
- Obtained 99.4% testing accuracy in just 10 epochs.

#### Email spam classifier [Python]

• Achieved 0.05% false positive rate using Naïve Bayes classifier written from scratch.

#### Music generation using Recurrent Neural Networks [Keras]

Generated music in MIDI format using Long Short Term Networks (LSTMs).

## Passenger count prediction using forecasting techniques [Python]

• Stationarized time series and used ARIMA forecasting method to predict number of air passengers per month.

#### **COURSEWORK**

Probabilistic Learning, Machine Learning, Recommender systems, Neural Networks, Parallel Computing.

### **SKILLS**

Machine Learning: Classification, regression, clustering, feature engineering, deep learning.

Languages: C, C++, Python, Java, SQL

ML Libraries: Scikit-learn, Pandas, Keras, PyTorch, Mahout, R

**Big data tools:** Spark, Hadoop **Web:** HTML, CSS, Javascript, PHP