# PRAVEEN KUMAR SRIDHAR

## Data Scientist

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## WORK EXPERIENCE

### Data Scientist
**Intellect Design Arena Ltd.**

📅 June 2018 – Present          📍 Chennai

- Designed, built and shipped **Deep learning models like LSTMs, Bidirectional LSTMs, and Bidirectional LSTMs with attention**. These models achieved **accuracy's upward of 90%** in the production environment.
- Built an entire **NLP pipeline** using **RabbitMQ** ( from tokenization to spell checking) which runs on multiple servers which are completely customizable wrt the number of workers/consumers and the flow.
- Optimize t-SQL procedure by implementing them through **spark** modules written in **scala**, complete with auto spin EMR clusters, actively monitoring their status through custom spark listeners.

### Data Analyst Intern
**Allsec technologies Ltd.**

📅 Feb 2018 – March 2018          📍 Chennai

- Worked on employee attrition rate in both **R** and **Python**. I initially used many prominent algorithms like **classification trees, SVM, random forest**. Finally, I settled on a simple **artificial neural network** which yielded better results.

## PERSONAL PROJECTS

- **Poetry Generator**: Trained **Bidirectional LSTM neural networks** to generate poems in 3 languages (English, Hindi, Tamil) the last 2 being regional languages.
- **AI Flappy bird**: Built the traditional flappy bird game using **pygame** and further trained an AI using **NEAT** (NeuroEvolution of Augmenting Topologies) to play the game. The AI trained quickly and has achieved a high score of 1000 and plays the game flawlessly.
- **Breast cancer Detection**: Trained a **deep neural network (ResNet-50)** to classify patches of Breast Cancer (BCa) specimens as positive or negative for IDC, the most common form of breast cancer. **The model achieved an accuracy of 85%**.
- **Twitter sentiment analysis**: Train a simple artificial neural network to classify the tweets as toxic or not, the data for this was pulled using the Twitter API.
- **Smart home automation** that detects user habits and regulates the energy consumption of the household using random forests.
- **Preventing disease spread** through edge-based detection and node isolation using Voronoi diagrams.

## EDUCATION

### B.Tech in Computer Science
**VIT University**

📅 2014 – 2018          📍 Chennai

**Cumulative GPA: 8.93/10**

## SKILLS

- **Languages & Aptitude** : Python, TensorFlow, Keras, FastAPI, MongoDB, SQL, R, Scala, Spark, C/C++, HTML, CSS, Java, Microsoft Power BI, Git.
- **Technical Skills** : NLP, Image Processing, Deep Learning, Machine learning (random forest, SVM, linear regression, logistic regression, Naive-Bayes), Data Cleaning Interpretation.

## CERTIFICATIONS

- Natural Language Processing in TensorFlow
- Neural Networks and Deep Learning
- Structuring Machine Learning Projects
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
- Convolutional Neural Networks
- Sequence Models

## AWARDS

- Was conferred with the **GEM award** for building the models and achieving the accuracy expected by the clients and my general contribution to the organization and team.
- My team won the **Chairman's Excellence Award** for our contribution to the organization.