

# Gopalakrishnan Shanker-Rajhan

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## EDUCATION

### UNIVERSITY OF ILLINOIS AT URBANA CHAMPAIGN

#### MASTERS IN STATISTICS

Expected May 2019

Champaign, IL

Cum. GPA: 3.6

### ANNA UNIVERSITY

#### BS IN MECHANICAL ENG.

Aug 2010 – May 2014

Chennai, India

Cum. GPA: 3.7

## COURSEWORK

### GRADUATE

Deep Learning

Advanced Machine Learning

Big Graphs & Social Networks

Monte Carlo Simulation Methods

Advanced Regression Methods

Mathematical Statistics

Foundations of Big Data

Data Structures

### UNDERGRADUATE

Robotics

Numerical Methods

Optimization Theory

Advanced Calculus

Linear Algebra

## SKILLS

### PROGRAMMING

R • Python • C++ • SAS

### DATABASES

SQL • Hive • Hadoop • Pig

### VISUALIZATION

RShiny • Tableau • ggplot2

• seaborn • plotly

### LIBRARIES AND TOOLS

scikit-learn • NLTK • scipy

• PyTorch • genism • Git

## INTERESTS

Coach at Slum Soccer

Photographer

Writing

B1 Zertifikat in German

## WORK EXPERIENCE

### GROUPON | DATA SCIENTIST INTERN

May 2018 – Aug 2018 | Chicago, IL

- Identified triggers indicating fraudulent behavior in consumer transactions
- Drove 17% increase in consumer fraud detection rates by overhauling a gradient boosted tree model
- Designed an intuitive framework for model evaluation and automated the process for Tableau

### LATENTVIEW ANALYTICS | DATA SCIENTIST

August 2016 – July 2017 | Chennai, India

- Enhanced customer experience on PayPal's website by designing A/B experiments and running multivariate testing initiatives
- Identified important web traffic paths and bottlenecks by using network analysis and graph based visualization

### MU SIGMA INC | DECISION SCIENTIST

Aug 2014 – June 2016 | Bangalore, India

- Utilized scraped social media data and logistic regression to identify potential new customers
- Revived 11% of potential attrition cases by building a customer classification algorithm using unsupervised learning
- Built 'Passion Index' - an algorithm to quantify the sentiment of the audience at soccer stadiums using scraped commentary and natural language processing

## PROJECTS

### SHOW AND TELL: NEURAL IMAGE CAPTION GENERATOR

Deep Learning Project

- Build a generative model using deep recurrent architecture to automatically describe the contents of an image
- Train a Convolutional NN as an image encoder and use its output as input to an LSTM decoder that generates sentences

### THE FIVE FACTOR MODEL OF PERSONALITY & DRUGS

Machine Learning Research Project

- Provided a psychological perspective on the 'War on Drugs' by predicting an individual's drug consumption choices using information about their personality traits
- Built an ensemble model using Random Forests, kNN and Naive Bayes which obtained an accuracy of 80%

### MOVIE SCREENPLAY ANALYSIS

Hobby Project

- Built a bag of words and word2vec model, to define the semantic characteristics of famous writers in Hollywood

### SOCCER ANALYTICS

Hobby Project

- Scraped soccer shots data from the web to build an 'Expected Goals' model. The model gives a quantitative measure to the quality of scoring opportunities