

# Gopalakrishnan Shanker-Rajhan

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## EDUCATION

### UNIVERSITY OF ILLINOIS AT URBANA CHAMPAIGN

#### MASTERS IN STATISTICS

Aug 2017 - May 2019  
Champaign, IL  
Cum. GPA: 3.7

### 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  
Advanced Regression Methods  
Mathematical Statistics  
Foundations of Big Data  
Bayesian Analysis  
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  
• networkX

## INTERESTS

Coach at Slum Soccer  
Photographer  
Writing  
B1 Zertifikat in German

## WORK EXPERIENCE

### GROUPON | DATA ANALYST

July 2019 - Present | Chicago, IL

- Build a user friendly Rules Recommendation Tool (to detect fraud) that uses the branches of a decision tree to pick the most effective rules

### SYNCHRONY FINANCIAL | DATA SCIENTIST INTERN

September 2018 - December 2018 | Champaign, IL

- Reviewed the existing literature on financial loss forecasting and built multiple time series and machine learning models for testing and comparison

### GROUPON | DATA SCIENTIST INTERN

May 2018 - August 2018 | Chicago, IL

- Drove 3 point increase in consumer fraud detection rates by engineering new features and overhauling a gradient boosted tree model using Python

### 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

### MU SIGMA INC | DECISION SCIENTIST

August 2014 - June 2016 | Bangalore, India

- Utilized scraped social media data and logistic regression to identify companies with potential for aggressive expansion
- 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

- Augmented the landmark 2015 publication from Google by training a Convolutional NN as an image encoder and using its output as input to an LSTM decoder that generates captions for the images

### GRAPH BASED RECOMMENDER SYSTEM

Network Analysis Project

- Explored the usage of product graphs and community detection to serve unique recommendations from Amazon's product catalogue

### PERSONALITY & DRUGS

Machine Learning Research Project

- Provided a psychological perspective on the 'War on Drugs' by associating an individual's cognitive personality traits with their drug consumption choices, using an ensemble ML model

### 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