

## AKSHAY SEHGAL

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I am a problem solver who finds logic and algorithms as my calling. I work as a data scientist utilizing supervised and unsupervised ML algorithms to generate meaningful solutions that can aid a business to take data driven decisions.

- My current role is to design algorithmic approaches for decision assist products in the **human resource**, **retail**, **advertising**, **web** and **social media** domains. I have experience in analytics for **entertainment**, **casino** and **supply chain** industries as well.
- My core technical expertise lies towards applying unsupervised machine learning algorithms such as **k-means**, **expectation maximization**, **gradient boosting** and **hierarchical clustering** methods. I also have worked with supervised methods such as **generalized regression**, **support vectors** and **random forest**.
- My weapon of choice is **Python** using Jupyter notebooks, but I have average understanding of **R**, **SAS** and **SQL** as well.

## EXPERIENCE

<b>IPREDICTT</b> New Delhi, IN 2016 – present	<b>COFOUNDER, PRODUCT STRATEGY &amp; RESEARCH</b> Led a team of data scientists, product developers and database engineers, researching into new data science technologies, aligning iPredictt's products towards best of class data science tools.
<b>IPREDICTT</b> New Delhi, IN 2015 – 2016	<b>COFOUNDER, DATA SCIENCE LEAD</b> Co-founded <a href="#">iPredictt</a> along with our CEO and investor. Responsible for handling data science research, solution architecture & implementation. Primary involved in Social media analytics, Advertising optimization & Risk modelling.
<b>MUSIGMA</b> Bangalore, IN 2013 – 2015	<b>SENIOR BUSINESS ANALYST</b> Led a team of analysts and data scientists, generating client value through data-driven analysis to sustain an environment of intelligent decision-making. Primary sectors covered were Supply Chain, Entertainment and Casino industry.
<b>MUSIGMA</b> Bangalore, IN 2012 - 2013	<b>BUSINESS ANALYST</b> Developed solutions for structuring and solving business problems that directly impacted client business and processes. Primary sectors were Retail and entertainment industry

## EDUCATION

<b>PUNE UNIVERSITY</b> Pune, IN 2008 – 2012	<b>B.E COMPUTER SCIENCES</b> Studied computer sciences at Army Institute of Technology, Pune university. Was part of debating team in 2009, magazine board in 2010 & web development team in 2011. Had a three-man graphic & web design startup with friends, called <a href="#">Treestrokes</a> from 2009 to 2011.
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## PROJECTS

### IPREDICTT

Lead & Inventor  
Sep 2016 – present

### CAREERLETICS ENTERPRISE (IN-HOUSE)

Goal is to create a tool for HR's for immediate assistance with pre-hire decision making. The 4 core components of [Careerletics Enterprise](#) platform are:

1. Personal CV repository that parses and extracts skillsets, experience and qualification data from resumes.
2. JD knowledge base that allows cultural customization and standardized job listings which an HR regularly hires.
3. Employability score to rank selected candidates with required JD based on skillset, education, experience and cultural match.

Skills used: Python, Expectation maximization, Gaussian mixture model, Hierarchical clustering, NLTK

### IPREDICTT

Team Lead  
Jun 2016 – Aug 2016

### ANALYZING NEGATIVE SENTIMENT FOR ABP NEWS.

Primary task performed was to pull data via Twitter APIs and Web scraping, followed by data cleaning and NLP treatment to generate sentiment score specific to the New Group. Primary sectors of concern were sentiments associated with political party affiliation. Adhoc analysis on understanding sharing of such sentiments with competitor news channels as well as detecting any targeted negative propaganda over social media were also performed.

Skills used: Python, Tweepy, NLTK, Decision trees, Random Forest, Logistic regression

### IPREDICTT

Team Lead  
Jan 2016 – Apr 2016

### AD-EX OPTIMIZATION FOR COLLECTCENT

Created a platform for a 60cr turnover mobile advertising startup, Collectcent to help them optimize process of select right publisher for the advertising campaign as a factor of time of the day, conversion rates, customer target category and network type. Variable importance calculated via Decision trees to categorize publisher efficiency and thus analyze trends better, while click probability for cookie ids was calculated by building a logistic machine learning model in R.

Skills used: R-Shiny, R, Decision trees, Random Forest, Logistic regression

### MUSIGMA

Sr. Business Analyst  
Jun 2014 – Oct 2014

### PREDICTING THEORETICAL WIN FOR CAESARS PALACE

Client used a simple business rule to calculate ADT (Accumulated daily theoretical win) for each of their customers to decide the category of their marketing spend. Estimates had accuracy of around 32% only which affected the customer targeting and engagement. After 4 months of analysis, prediction accuracy successfully touched the 53% using advanced statistical methods. This was followed by a financial modelling simulator to generate best case profit and loss scenarios over variable marketing spends.

Skills used: R, Excel, K-means clustering, Support vector machines, Monte-Carlo simulation

### MUSIGMA

Sr. Business Analyst  
Dec 2013 – May 2014

### ANALYSIS OF BRAND CANNIBALIZATION FOR MATTEL

The toy brand and manufacturer showed quarter on quarter ROI decline of 20% which amplified further during the latest holiday season. After 6 months of engagement my client gained visibility into factors that affected the performance, popularity and customer associability of their primary brand. Brand cannibalization for found to be the primary reason behind the sales decline. This allowed them to take major decisions in time to stabilize the curve to around 8% decline in the coming quarter and also affected the launch dates of their upcoming brands.

Skills used: 5-D deterministic modeling, Web & social media analytics, Regression analysis

## ACHIEVEMENTS

### 3 PATENTS

#### INVENTOR FOR THREE TECHNOLOGY PATENTS

- System and method for determining fraudulent activities of user by analyzing a user behavior profile - [201621034522](#)
- System and method for generating behavior profile of an entity based on personality traits - [201621034521](#)
- System and method for ranking candidates by job and cultural fitment for pre-hiring stage - [201721005644](#)

### 2 STARTUPS

#### CO-FOUNDER ENTREPRENEUR EXPERIENCE

- Treestrokes was a 3-man graphic design team that I was a part of back in my college which developed designs and websites for small local businesses.
- iPredictt is a 5-man venture that I co-founded along with our CEO and Investor to compete in the data science and analytics market in India via decision making tools for retail, social media and human resource industries.

### 2 SPEAKER EVENTS

#### INVITED AS A PANELIST / SPEAKER TWICE

- [Convergence India IOT 2017](#), Pragati Maidan, New Delhi – Talked about big data, fast data and the role of data science. 45 min panel discussion.
- (Upcoming, Apr 20-21) SHRM Hyderabad conference – To talk about HR technology and its future. 30 min talk.