Contact

www.linkedin.com/in/vijairangan
(LinkedIn)

Top Skills

SQL
C++
C

Languages

English (Full Professional)
Tamil (Native or Bilingual)
Hindi (Limited Working)

Certifications

Introduction to Data Science

Data Analysis and Statistical
Inference

Leveraging Unstructured Data with
Cloud Dataproc on Google Cloud
Platform

Google Cloud Platform Big Data and
Machine Learning Fundamentals

70-461 – Querying SQL Server 2012
database

Honors-Awards

Smt. G. S. Rajalakshmi Memorial
Award

Publications

Nanocomposite Silica Surfactant
Microcapsules by Evaporation
Induced Self Assembly: Tuning the
morphological buckling by modifying
viscosity and surface charge

Vijai Kasthuri Rangan

Data Scientist at Google
Mountain View, California, United States

Summary

Data Scientist with the Google Patents team solving problems
related to patent strategy.

Previously, a Senior Data Science Specialist with Deloitte focused
on applying statistical analysis and machine learning to business
problems across industries.

Most driven about ideating, leading and applying data science
and analytics solutions on problems targeted towards Customer
Segmentation, Marketing, Product Growth, Sentiment, Customer
Retention and Acquisition.
More than 7 years of combined academic and professional
experience in data science and analytics.

Technical Skills -
Languages: Python, R, SQL, T-SQL, BigQuery
Frameworks and Libraries: Tensorflow [for deep learning], Scikit-
learn, Pandas, NLTK [Natural Language Processing Library], Spacy,
Gensim, Seaborn, Plotly
ML/Big Data: Google Cloud Platform [Cloud ML Engine, Dataflow,
BigQuery], HIVE, Hadoop
Visualization Softwares: ipython, Tableau, Google Cloud DataStudio

Master of Science in Business Analytics graduate from the Red
McCombs School of Business - The University of Texas at Austin.

Experience

Google
Data Scientist
April 2020 - Present (3 years 4 months)
San Francisco, California, United States

Applied Data and Machine Learning for Google Patents

Deloitte
3 years 9 months

Senior Data Science Specialist
July 2018 - April 2020 (1 year 10 months)
Arlington, VA

Data Science Specialist
August 2016 - July 2018 (2 years)
Arlington, VA

Some project highlights as Data Science Specialist at Deloitte

Determine Up-sell Probability for Existing Customers (Tensorflow PoC)
Developed a custom Tensorflow Estimator (python) deployed on Google Cloud ML Engine to predict up-sell opportunity for a bank. The effectiveness of using a custom Tensorflow Estimator API was assessed against a traditional logistic regression model. (Google Cloud ML Engine, Tensorflow)

Attribution Modeling for Call Center Metrics
Established key relationships between customer experience metrics and bottom line of a telecom major by using multivariate linear and non linear regression models that providing better control on metrics for key business stakeholders; Python – sklearn, pandas, statsmodels

Customer Segmentation and Profile Generation
Created an unsupervised patient segmentation model using a modified k means algorithm that would classify patients into buckets based on their behavior characteristics to segment customers for pharma major; HIVE, Pyspark, Python – sklearn, pandas, seaborn

Social Media Analytics (Text Classification)
Built a classification algorithm to gauge public sentiment and created a customized dashboard to analyse key themes trending about traveller programs and its products; Python – pandas, sklearn, NLTK, spacy, gensim

Text Analytics on Customer Conversations
Built a text classification model that learns from the language usage and the contexts can be used to tag the conversations with predefined topics was built on transcribed conversation notes. An unsupervised technique that creates word vectors (word embedding) was used to determine correlated

keywords from conversations. These keywords were used to generate labels for predefined topics. An array of supervised classification models were built to learn from this label dataset and use an ensemble approach to accurately classify any new conversations into the topic buckets. Python – pandas, sklearn, NLTK, spacy, gensim

Walmart
Marketing Analytics Capstone Project Intern
January 2016 - May 2016 (5 months)
Austin, Texas Area

Evaluated incremental revenue gained from customer initiated discounting options for Walmart

Identified potential markets for better promotional activities and provided recommendations for the Walmart Global Customer Insights Analytics Team (WGCIA) with strategies that could improve RoI on promotional spend.

Recommended promotional strategies and identified target cohorts based on statistical analysis of significance and sensitivity of customers who use discounting options

Used log regression with interactions to identify the importance of demographics and discounting options; Used T-tests to test for significance of the incremental revenues obtained

Thorogood Associates
Business Intelligence and Analytics Consultant
July 2012 - May 2015 (2 years 11 months)
Bangalore

Project managed a team of three consultants from India and contributed to resource planning and allocation for optimum resource utilization

Designed data models using star schema in QlikView; drafted visualizations to help business improve key calls and sales metrics and significantly enhanced performance of KPI reports in QlikView leading to migration of several dashboards to QlikView for the largest healthcare company

Expertise in full project life cycle management from development to implementation across all environments (Dev / UAT / Production).

Built BI and Analytics system for Fortune 100 US mutual insurance company using Microsoft's BI suite; enabled senior business users to track loss incurred over different periods;

Designed custom coded UI using C#/CSS/JavaScript/SharePoint for fortune 100 CPG Company's operations team schedule and track cost centre data loads faster and efficiently; helped team save up to 70% of the costs involved in financing a support team per year to keep track of the data loads

Developed SSRS reports to analyze the effectiveness of forecast made during the demand planning week and attribute losses to a loss tree

Successfully supported and troubleshot issues across Microsoft Business Intelligence Stack – SQL, SSIS, SSAS, SSRS and SharePoint for the Sales and Operations (S&OP) team at Fortune 100 CPG company; successful completion of four major change requests during year of support

National Chemical Laboratory
Summer Research Intern
May 2011 - June 2011 (2 months)
Pune

Simulated using the software "Surface Evolver" a model that uses gradient descent algorithm to resolve a simplical complex to a low energy model. The optimization problem was solved within specified energy constraints.

Indian Institute of Technology, Madras
Summer Research Intern
May 2010 - June 2010 (2 months)
Chennai

Research and development of a prototype for the utilization of polymer - Polyaniline in Chemical Sensors to detect nitro molecules at low concentrations (<100 PPM levels).

Education

The University of Texas at Austin - Red McCombs School of Business
Master's Degree, Business Analytics · (2015 - 2016)

National Institute of Technology Tiruchirappalli

Bachelor's Degree, Chemical Engineering · (2008 - 2012)