SANDEEP KOLA

BUSINESS INTELLIGENCE & DATA SCIENCE

CONTACT

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EDUCATION

2019
MONASH UNIVERSITY [MELBOURNE, VIC]
Master of Data Science
Advanced Data Analytics Stream

2014
SRM UNIVERSITY [CHENNAI, INDIA]
Bachelor of Technology in Aerospace

MANAGEMENT SKILLS

- Agile / Waterfall Development
- Talent Acquisition
- Project and Team Management
- Trello, Git, MS Office, BPMN 2.0

TECHNICAL SKILLS

- Machine Learning - Classification, Regression, Clustering, Decision trees, Random forests, NLP, Time series forecasting & Neural networks
- Advanced Analytics, Statistics & Probability, and Data Visualization
- SQL Server, Oracle MySQL, PostgreSQL
- Python, R, Shiny, bash, Scala, Tableau, HTML & CSS.

PROFILE

- Business Intelligence and Data Science Consultant and a former Data Analyst; focused on the use of Data Science/Big Data/Analytics to solve complex business problems and bring value to the business.

PROFESSIONAL SUMMARY

- 4.5+ years of applied data science/machine learning/business intelligence experience in Industry.
- 4.5+ years of team/project management experience in commercial data analytics, AI, optimization in complex datasets.
- Project experience of delivering data-driven solutions in eCommerce, travel, hospitality, food & beverage, and retail.
- Skilled in developing scalable and enterprise-level end to end data science models in Python using data science life cycle development/agile/ waterfall/ hybrid models right from defining business problems, architecting advanced analytics solutions, doing extensive ETL and collecting and pre-processing complex amounts of data, analyzing, feature engineering and building intelligent models that can be deployed into production.
- Proficient knowledge in regression, classification, segmentation, user profiling, user behavior modeling, feature engineering, recommendation systems, cognitive computing, text mining/sentiment analysis, natural language processing, computer vision, image recognition systems and price optimization strategies.
- Applied and theoretical understanding of algorithms and processes such as support vector machines, random forests, neural networks, ensemble models, decision trees, regression, KNN, Naive Bayes, clustering, recommender systems, NLP, text mining, linear/non-linear programming.
- Project experience in developing time series forecasting models in R using ARIMA, exponential smoothing, decomposition and dynamic regression modeling.
- Hands on experience with Python (Numpy, Pandas, SciPy, Matplotlib, Seaborn, Scikit-Learn, Gensim, etc.), R, Shiny, SQL, MySQL, Tableau, Data collection, Exploratory data analysis, Data visualization, Statistical analysis, Hypothesis tests, Forecasting, Docker container management services, CI/CD approaches, HTML, and CSS etc.

PROFESSIONAL EXPERIENCE

Feb 2019 - PRESENT

Business Intelligence Consultant | iBizOrch, Melbourne

Client: Fireshot

Ecommerce & Sales

Data science, BI, ETL & ML

- Engage in client meetings with principal consultant to architect business intelligence solutions to increase sales; increased sales over 15%
- Understand business questions from client and combine multiple sources of data in Python (performing data wrangling and preprocessing) to analyze the sales data and deliver a variety of data driven insights; reduced human efforts by 10 times.
- Used Extensive ETL strategies in Python using Pandas, Numpy etc. libraries to discover bottlenecks in sale points by visualizing results through Matplotlib, seaborn etc. and established root cause analysis to find the reasons for the increased number of lost sales; discovered major malfunctions in the autonomous sales allocation software which in turn saved 10% of R&D budget.
- Built user profiling models in Python using K-means clustering in Scikit-Learn library to make targeted advertising; reduced marketing budget by 5%
- Integrated data from multiple sources (data wrangling by combining SQL, Google Sheets, and cloud data) to discover insights about customer lifetime value and increase customer retention and developed dashboards in Tableau to present insights; received client appreciation and bonus
- Built demand forecasting model based on historic data and used predictions for inventory management; improved efficiency and cut down costs by 5%

Analytics & Insights

Leadership

- Led and developed analytics wing in the company by working closely with CTO and Principal consultant.
- Developed standardized analytics strategies and inhouse machine learning models using Scikit-Learn pipeline architecture to easily deploy data science solutions into production.
- Driving strategy and vision for products by translating research, customer insights, and data discovery into innovative solutions for customers.
- Finding opportunities to integrate data science and AI strategies to increase sales and reduce human efforts.
- Collaborated with Product Managers, Solution Architects, and Customers to develop data analytics solutions for small/medium startups and receive the valuable product / features feedback.
- Working with the team of experts to design and develop data-driven solutions, dashboards for presenting the meaningful insight from the data to the customer.

Jan 2017 – Jan 2019

Data Analytics Consultant | Connect CRM

Client: Connect CRM

Microsoft Dynamics

Visualization, Tableau, AWS

- Organized dashboards in Tableau after extensive ETL using python to analyze the revenue, expense over various attributes of employee, project, time and location dimension; increased revenue over 8%
- Built an enrollment prediction model in Python using logistic regression to predict the student enrollments in respective domains and help leverage the targeted advertisements; reduced marketing budget by 12%
- Done extensive changes to increase the performance of the support vector machine learning model in Python; increased efficiency over 2 times.
- Helped teams with Python code mentoring and increase the efficiency of the ML models; developed inhouse automation pipelines.

Data Analyst | Tata Consultancy Services (TCS), India

Client: IHCL

Domain: Hospitality

Data Science, ML & visualization

- Built and delivered a new improved dynamic price prediction model using random forests, increasing profits over an estimated 5%.
- Built customer behavior segmentation using cluster analysis to identify high-value customers for targeted marketing based on demographics and purchasing trends.
- Re-engineered and automated information for consolidation through ETL and storing of only critical information from over a huge set of data using Python; increased speed of information retrieval by over 50 times.
- Performed data cleaning, data manipulation, and exploratory data analysis to find trends/patterns of customers churning.
- Collaborated with ETL team to build highly efficient & scalable data pipelines to ingest and process huge volumes of data directly into Tableau, helping Business users make data-centric decisions.
- Implemented query optimisations on large datasets & databases using python scripts and SQL queries and eventually performed Data Analysis & Machine Learning.
- Performed A/B Testing to gauge the effectiveness of different marketing campaigns before launching them into the market.

Client: VFS GLOBAL

Domain: Travel

Databases & Analytics

- Developed and implemented a new Oracle SQL database for the project which cut down the costs by 10%.
- Built a pipeline by doing an extensive data preprocessing using Python and built custom dashboards for visualizing the results in Tableau.
- Implemented multiple end to end Product Rollouts and Change Requests using SQL in 30% lesser time; developed impact analysis dashboards using R and shiny.
- Actively collaborating with global IT, Architecture, Infrastructure, and Sales teams to deploy solutions.

APPLIED RESEARCH

- Demand forecasting for a major restaurant chain; combine multiple sources of historical data to extract meaningful information and forecast the orders for the next 10 weeks using gradient boosting models; achieved a 90% accuracy.
- A house price prediction research project for deploying machine learning models into production using scikit-learn pipeline approach combined with circleCI to automate testing jobs using CI/CD; Python, Git, circelCI, docker, AWS
- Know your waves – a social good initiative project done based on extensive data preprocessing to identify causes of drowning incidents and developed a product to educate people from drowning.
- Used Airbnb Melbourne dataset to develop a price prediction model based on numerous variables; python, ML, neural nets; 5% increased accuracy over traditional approaches.
- Sports modeling for Betfair Australian open Datathon; production-ready deployment model, achieved 80% accuracy.
- Mercari Price suggestion; combined extensive textual and numerical features to build a model to suggest the price of a listing; achieved 90% accuracy.
- A research initiative for Document classification using singular value decomposition; improved classifier accuracy by 6% over traditional approaches.
- Developed a Smart attendance system using face recognition OpenCV on raspberry Pi; product ready usage.
- Monash sprint challenge; find and fix errors in huge datasets in real-time; ranked in top 3.
- Volunteered at various events and meetups for code mentoring and help explain companies about leveraging data science and business intelligence strategies at affordable costs.