

Lakshmi Venkatasubramanian

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Summary

Data and Machine Learning Enthusiast with overall work experience spanning Test Engineering and Data Analytics, supporting and driving customer insights and data projects end to end.

Education

- **Master's in Data Science**, University of Washington, USA (GPA 3.9/4) **(2019-2022)**
Relevant coursework (through Winter 2021) - Applied Statistics and Experimentation Design, Introduction to Probability and Statistics, Data Science process, Human Centered Data Science, Statistical Machine learning, Data Visualization, Human Centered Data Design, Software Design for Data Scientists
- **Bachelor of Engineering in Electrical and Electronics**, Anna University, India (GPA 3.7/4) **(2005-2009)**

Technical Competencies

- **Languages/technologies**: Proficient in SQL, Java and Python and familiar with R, JavaScript, HTML, CSS
- **Machine Learning**: Regression, Support Vector Machine, Decision trees, Principal Component Analysis, K-means clustering, LASSO, Sentiment analysis, Anomaly detection, hands-on using Scikit-learn analysis package, NumPy, Pytorch and pandas, familiarity with Natural Language Processing and Deep Learning
- **Databases**: Oracle SQL, HANA Studio, Athena, MongoDB, SQL, SAP HANA Studio, SAP Data Objects
- **Experimentation Design and statistics**: Probability distributions, A/B testing, Hypothesis Testing, ANOVA, Regression, Classification
- **Data Visualization** : Tableau, Power BI, Excel
- Experienced with Git, Amazon Web Services, Linux terminal

Projects

Selected projects on [Github](#)

- **Predict Education Costs** : The goal of this [project](#) is to predict education costs of 4-year public university program in USA and identify the most influential predictor variable based on accuracy and model assumptions using glm.
- **Analysis of Housing Prices**: In this [project](#), the association between the price per night of a listing is assessed based upon a variety of factors and attempt to determine whether the impact of said factors changes based upon the city market using a Poisson regression model.
- **Streaming Platforms Comparison**: The goal of the [project](#) is to create an interactive visualization using Tableau that can be perceived as a go-to marketplace for comparing popular streaming platforms on various metrics such as Genre, content type, average IMDb rating.
- **Analysis of COVID impact on US Households**: The goal of this [analysis](#) is to gauge the impact of the pandemic on overall household characteristics such as employment status, housing, education disruptions, and dimensions of physical and mental wellness and answer some of the research questions using Regression Analysis, K-means clustering, PCA and statistical analysis.
- **Sentiment Analysis and Bias in Data**: The goal of this [project](#) is to predict the sentiment of Wikipedia discussion comments and identify any sources of bias that may exist in the datasets using Exploratory Data Analysis, NLP toolkit and Naïve Bayes.

Professional Experience

Senior Test Engineer/Data Analyst, Puget Sound Energy **(Jun 19 - Current)**

- Lead Data Analytics projects collaborating with Business users and cross-teams, making recommendations to test approach and test strategy, and mitigating project timeline constraints.
- Tested end to end ETL workflows and Business use cases through SQL queries, enabled Data-Driven decision making by contributing to the analysis and validations of 2 major Power BI Analytics Dashboards to the End Customers.
- Identified root cause of high severity defects in the Python Data Science features that impacted 40% of data.

UAT Test Lead, Microsoft (Tata Consultancy Services) **(Dec 17 - Aug 18)**

- Delivered a cross-functional Partner Rebates project that uncovered major gaps in the Rebates Eligibility program and contributed towards Revenue Protection saving thousands of dollars in revenue.
- Transformed ambiguous requirements into well-defined actionable tasks by doing data analysis using SQL and meeting with the business experts that reduced the team's effort by 50%

Software Development Engineer in Test, Liberty Mutual (Tata Consultancy Services) **(Jul 16 - Nov 17)**

- Maintained development, testing of applications, and supported Agile teams resulting in 2 major customer facing releases.
- Automated testing web services using SOAP UI, Groovy, and User Interface using Selenium framework that resulted in reduction of execution time and manual efforts by 60%.
- Reported product quality metrics such as entrance and exit criteria, user experience and usability defects, regression defects to aid in product release.

Achievements and Certifications

- Second place in Husky AI Hackathon 2020 out of the 12 teams and contributed towards the design of the User Interface.
- Grace Hopper Student Scholar 2020 sponsored by University of Washington.