

# Lakshmi Venkatasubramanian

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## SUMMARY

Data Science and Machine Learning enthusiast with overall work experience spanning Test Engineering and Data Analytics, supporting and driving Customer Insights, User Experience and Data projects end to end.

## EDUCATION

- **Master's in Data Science**, University of Washington, USA (GPA 3.91/4) (2019-2022)
- **Bachelor of Engineering in Electrical and Electronics**, Anna University, India (GPA 3.7/4) (2005-2009)

## SKILLS

- **Languages/technologies:** SQL, Java and Python, familiar with R, JavaScript, HTML, CSS
- **Machine Learning:** Regression, Classification, Clustering, Principal Component Analysis, Sentiment analysis, Anomaly detection, hands-on using Scikit-learn and Spark ML package, NumPy, PyTorch and pandas, Predictive Modelling, Exploratory Data Analysis
- **Databases:** Oracle SQL, HANA Studio, AWS Athena, MongoDB, SQL, SAP HANA Studio, SAP Data Objects, Cassandra, PySpark
- **Experimentation Design and Statistics:** Probability distributions, A/B testing, Hypothesis Testing, ANOVA
- **Data Visualization :** Tableau, Power BI, Excel
- Experience working on Git, Amazon Web Services, Linux terminal, Extract Transform Load(ETL)

## PROJECTS (Selected projects on [Github](#))

- **[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.  
**Skills used:** Exploratory Data Analysis, Data Cleaning, Tableau Visualization
- **[Analysis of COVID impact on US Households](#):** The goal of this [analysis](#) is to gauge the impact of the pandemic on overall household and answer the research questions using **Regression Analysis, K-means Clustering, PCA, Statistical analysis, Hypothesis Testing**.
- **[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, Predictive Modelling, NLP toolkit and Naïve Bayes**.
- **[Illicit transactions detection in the Bitcoin blockchain](#):** The goal of this [project](#) is to compare the performance of **supervised** and **unsupervised techniques** to detect illicit bitcoin transactions on Elliptic dataset

## RELEVANT EXPERIENCE

- |  |                                    |
|--|------------------------------------|
| <b>Energy Analyst Intern</b><br>Tesla  | Sep 2021 – Current<br>Redmond, WA  |
| <ul style="list-style-type: none"><li>• Automate metrics calculations based on contractual obligations using Python and pyspark</li></ul>  |                                    |
| <b>Machine Learning Engineer Intern</b><br>Intuit  | Jun 2021 – Sep 2021<br>Redmond, WA |
| <ul style="list-style-type: none"><li>• Built customer churn binary classification model using spark MLlib, Databricks and evaluated the best model based on F1-scores.</li><li>• Evaluated AutoML solution from vendors to support propensity models to end customers leveraging AWS infrastructure.</li></ul>  |                                    |
| <b>Senior Test Engineer</b><br>Puget Sound Energy  | Jun 2019 – Mar 2021<br>Bothell, WA |
| <ul style="list-style-type: none"><li>• Led testing efforts of Data Analytics projects using Project Management, Leadership, Python and SQL skills which improved data-driven decision-making capabilities for End Customers via Power BI dashboards by 80%.</li><li>• Achieved 90% improvement in the overall test approach and test strategy by adopting Agile best practices, improving User Experience and mitigating project timeline constraints.</li><li>• Tested Extract Transform Load(ETL) workflows and performed data validations in AWS S3, Athena and SAP HANA studio.</li></ul> |                                    |
| <b>Senior Data Analyst</b><br>Microsoft (via Tata Consultancy Services)  | Dec 2017 - Aug 2018<br>Redmond, WA |
| <ul style="list-style-type: none"><li>• Spearheaded a cross-functional Partner Rebates project using Project Management, Leadership skills that uncovered major gaps in the Rebates Eligibility program saving thousands of dollars in revenue.</li><li>• Transformed ambiguous requirements into well-defined actionable tasks by debugging and analyzing data using SQL and debugging, and reduced the team's effort by 50%</li></ul>  |                                    |
| <b>Software Development Engineer in Test</b><br>Liberty Mutual (via Tata Consultancy Services)   | Jul 2016 - Nov 2017<br>Seattle, WA |
| <ul style="list-style-type: none"><li>• Maintained development and supported Agile teams for User Interface and Web applications using SOAP UI, Java, Groovy, and Selenium framework that resulted in reduction of execution time and manual efforts by 60%.</li><li>• Provided visibility on the overall Product Quality to Stakeholders by timely reporting of metrics such as Entrance/Exit criteria, User Experience, Defects, Downtime, Automation coverage to aid in product release.</li></ul>  |                                    |

## ACHIEVEMENTS

- 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 and 2021 sponsored by University of Washington.