

# Mark Susol

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## STAFF DATA SCIENTIST

I am seeking opportunities to lead initiatives or teams at the forefront of AI and Machine Learning. Whether as an individual contributor or a manager, my goal is to foster a culture of continuous learning and improvement, guiding teams to unlock new potentials in AI, and translating complex data insights into actionable business strategies.

- **Programming:** Expertise in Python, SQL and R for data analysis, modeling, and visualization.
- **Data Analysis:** Perform exploratory data analysis, hypothesis testing, and derive insights.
- **Data Visualizations:** Clear, informative visualizations using Matplotlib, Seaborn, ggplot2, or Tableau.
- **Machine Learning:** Implement & tune supervised online models with scikit-learn, TensorFlow.
- **Project Management:** Planning, execution, collaboration with cross-functional teams.
- **Tech Leadership:** Influencing technical culture as a full-stack data science expert.
- **Communication:** Articulate data insights and findings to cross-functional stakeholders.

## WORK EXPERIENCE

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**Google** • Boulder, CO

**09/2015 – Present**

### Staff Business Data Scientist

- Improved Google's support routing match accuracy by 35% with advanced online ML models using TensorFlow, saving Google substantial costs via real-time serving technologies.
- Performed qualitative analysis for Google's Text to Image Generative AI initiative, providing valuable insights regarding bench marking internal tools performance.
- Leveraged clustering, topic modeling, logistic regression, and multi-class classification to derive ad-hoc insights into business operations.
- Established a NLP-based research initiative on raw user text analysis, enabling symptom clustering, detection of emerging issues in user feedback, and contact form efficacy.
- Experienced with Google's General Workflow Management Platform orchestrating workflows using Python, R, and/or SQL for data engineering and machine learning pipelines.

### SQL Readability Admin [20% project]

- Led a cross-functional admin team at Google, analyzing GoogleSQL features and streamlining global SQL style guide for improved readability across the organization.
- Improved SQL code optimization by mentoring Googlers in code reviews, resulting in consistently ranking Top 5 for review completions.
- Demonstrated strong instructional skills and subject expertise by achieving a high feedback score of 4.7/5 for training 60 Googlers per quarter in GoogleSQL Functions and Modules.

### Senior Data Engineer

- Implemented data integration and architecture around raw log processing and integration of support interaction events to build data warehouses and reporting methodologies.
- Collaborated with business stakeholders and engineering teams to successfully implement innovative data pipeline, resulting in improved business reporting accuracy and timeliness
- Established and led the gUP Analytics Tech Working Group, enhancing the team's methodologies and overall workflow through dedicated expertise.
- Conducted 193 technical interviews evaluating candidates for data engineering or analyst roles.

**Technical Solutions Engineer**

- Created Business Intelligence tools using Google App Engine, integrated with Google Data Services.
- Improved data processing time by incorporating MapReduce in Python and Go, in ETL processes.

**REI Systems** • Reston, VA**02/2012 – 08/2013****Software Engineer**

- Developed SaaS predictive analytics software in Python; Logistic and Linear Regression.
- Built interactive visualizations using AJAX, Drupal REST API, HighCharts, and D3.js

**EDUCATION**

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**MS in Applied Physics**

University of Maryland Baltimore County (UMBC) • Baltimore, MD

**12/1995****BA in Physics**

University of Maryland Baltimore County (UMBC) • Baltimore, MD

**12/1992****AWARDS & SCHOLARSHIPS**

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**VP Award: Scaled tracking of gPay product outcomes following support interactions.****03/  
2018**

Google

**VP Award: Design, development and launch of clickstreams data infrastructures covering all users support interaction****12/  
2017**

Google

**SKILLS**

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Apache Spark, Artificial Intelligence, Bazel, BigTable, Business Intelligence Reporting, Business Intelligence Software, Collaborative Environment, Data Analysis, Database Design, Data Pipelines, Data Science, Data Warehouse, Django, Exploratory Data Analysis, Flume, Generative AI, git, GitHub, Go, Google App Engine, Google Cloud Platform (GCP), Google File System (GFS), Hadoop, HDFS, JavaScript, Machine Learning, Management, MapReduce, Mentoring, MySQL, Natural Language Processing, Object Oriented Programming, Performance Analysis, Predictive Modeling, Program Management, PySpark, Python, Quality Monitoring, R, scikit-learn, Snowflake, SQL, Tableau, Technical Leadership, TensorBoard, TensorFlow, Test Driven Development, Workflow Management, ZetaSQL