
MARK SUSOL

marksusol@gmail.com | 970-680-3194 | [linkedin.com/in/marksusol](https://www.linkedin.com/in/marksusol) | Erie, CO USA

PROFESSIONAL SUMMARY

Experienced AI and ML leader, specializing in NLP and ML operations, with a proven track record in translating complex data insights into actionable industry-specific strategies. Skilled in leading initiatives and teams to develop innovative AI solutions across various domains.

- **AI Strategy Development:** Develop and communicate an AI strategy aligned with business objectives.
 - **Solution Design:** Lead the design and architecture of scalable and high-performing AI solutions.
 - **Technical Leadership:** Provide guidance and mentorship, fostering innovation and excellence.
 - **Client Engagement:** Collaborate with clients to understand their needs to translate into actionable AI solutions.
 - **Project Management:** Oversee end-to-end project delivery, ensuring on-time and on-budget execution.
 - **Research and Development:** Stay updated on AI trends and incorporate them into the company's offerings to maintain a competitive edge.
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WORK HISTORY

Google, Boulder, CO - Staff Data Scientist

Nov 2018 - Jan 2024

- Collaborated with product and research teams to analyze real-world business problems across various domains including Google's supply chain, user support, NLP research, and generative AI research.
- Applied predictive ML specifically using NLP to develop new business strategies and solutions to address complex challenges like detection of emerging issues, and server deployment failures.
- Improved Google's support routing match accuracy by 35% with predictive online ML models using NLP-based TensorFlow models, saving Google substantial costs via real-time serving technologies.
- Provided qualitative analysis for Google's Text to Image Generative AI initiative, providing valuable insights regarding benchmarking internal tools performance.
- Developed end-to-end AI/ML workflows primarily with Python on Google's Tensorflow framework tailored to address our specific business challenges.
- Spearhead the creation of user engagement scoring models, focusing on metrics such as effort scores, to gauge customer engagement levels across Google's diverse support ecosystems and individual products.
- Collaborate with cross-functional teams to ensure the development of comprehensive scoring models that accurately reflect user behaviors and interactions across platforms.
- Managed analytical projects with cross-functional stakeholders, documenting project requirements and design principles, and communicating routine progress and milestones met.
- Maintained custom Python and SQL modules deployed in NLP AI/ML workflows across multiple domains through rigorous unit and integration testing.

Google, Mountain View, CA - Senior Data Engineer

Sep 2015 - Oct 2018

- Orchestrated the design and implementation of robust data integration strategies and architectural frameworks, focusing on raw log processing and the integration of support interaction events.
- 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.

Cognizant, Mountain View, CA - Technical Solutions Engineer

Sep 2013 - Aug 2015

- 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 - Software Engineer

Feb 2012 - Aug 2013

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

EDUCATION

Master of Science - MS in Applied Physics

University of Maryland Baltimore County · Baltimore, MD

1995

Bachelor of Arts - BA in Physics

University of Maryland Baltimore County · Baltimore, MD

1992

AWARDS

VP Award: Scaled tracking of gPay product outcomes following support interactions. | **Google**

Mar 2018

VP Award: Design, development, and launch of clickstream data infrastructures. | **Google**

Dec 2017

SKILLS

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, PostgreSQL, Predictive Modeling, Program Management, PySpark, Python, PyTorch, Quality Monitoring, R, scikit-learn, Snowflake, SQL, Tableau, Technical Leadership, TensorBoard, TensorFlow, Test Driven Development, Workflow Management, ZetaSQL