Townsend Saunders III

Address	Corvallis, Oregon	Website	https://townsend-saunders3.github.io
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Email	townsend.saunders3@gmail.com	LinkedIn	linkedin.com/in/townsendsaunders3

Data Scientist II	**Reliance Inc.**	**Feb 2019 – Sep 2023**

Inventory Mastering
- Built a unified Item Master solution, streamlining inventory management across 50+ subsidiaries, allowing for inventory sharing, improved efficiency, and reduced customer churn.
- Collaborated with stakeholders to deliver a standard inventory labeling system using Agile workflows, Python, Spark (PySpark), AWS tools, Natural Language Processing (NLP Transformers), and various statistical modeling and Machine Learning techniques.
- Automated real-time model optimization, deployment, and algorithm evaluation via AWS Sagemaker.
- Wrote rigorous documentation and testing via Python scripts, Jupyter Notebooks, and GitHub for long term code maintenance, explainability, and debugging.

Anomaly Detection and Predictive Maintenance
- Spearheaded an anomaly detection system for warehouse machinery, preventing costly breakdowns and hazards.
- Interfaced with supervisors, creating real-time alert systems based on critical telemetry data from 30+ Bosch XDK devices.
- Utilized AWS for data streaming, analysis, and TensorFlow for Deep Learning (Long-Short-Term-Memory Networks) enabling diagnostic, predictive, and prescriptive insights, including machine shutoffs and preventative maintenance.
- The initiative preempted multiple breakdowns, expanding its application across various warehouses.

Sales Forecasting Web Application
- Designed a serverless Data Lab web app using AWS tools, Docker, GitHub, Sagemaker, and Python allowing for an interactive forecasting experience for non-technical stakeholders.
- Developed a UI for non-tech users to query our Data Warehouse via Snowflake's Snowpark and try a multitude of statistical forecasting methods (Decision Trees, MLP, Random Forests, Linear and Logistic Regression, etc.) without the end user having to write a single line of code.
- Established an ML pipeline for time-series data, with visualizations using Streamlit, Plotly, Lambda, and other tools.
- Enabled large-scale forecasting for 50 companies and created a Data Lake integrating external financial data.

CTO / Head of Design	**Adomly**	**Sep 2023 - Present**

Gymnastics Rings Product Launch
- Built Adomly's online retail web app for 2024 Olympic team member, Dominique Parrish, and led the product design of her signature product: Adomly Gymnastics Rings.
- Made use of Dall-E 3 for product images and assets, allowing for agile smoke tests and market research without the need for a physical product.
- Designed a set of "Blue Ocean" product features aimed at minimizing competition and maximizing untapped market space.
- Negotiated a 30% contract discount with a 3rd party Engineering and Product Design firm saving precious capital while ensuring the development of a safe and manufacturable design.

University of California, Berkeley	**College of Engineering**	**Aug 2015 – Aug 2019**

B.S. Engineering Mathematics, Statistics, Computer Science

Skills

Programming Languages & Tools
- Python, SQL, Jupyter, Streamlit, Java, JavaScript
- GitHub, Docker, AWS, Snowflake, Azure

Machine Learning
- TensorFlow, Scikit-Learn, PyTorch, NumPy, Pandas,
- Open AI API/ Chat GPT/ GPT4