REED GRIMM

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Data Scientist with expertise in machine learning, deep learning, and data preprocessing, with experience across diverse domains, including bioinformatics. Proficient in building and deploying predictive models and collaborating with stakeholders to deliver actionable insights. Demonstrated proficiency with Python, AWS, SQL databases, and data visualization. Master's degree in Computer Science with a concentration in Data Science.

PROFESSIONAL EXPERIENCE

Deep Learning Scientist - Syngenta, Durham, NC
2023 - 2024

- Designed and developed a 1D-CNN DNN model to predict gene expression, reducing error by 80% and improving predictive accuracy.
- Mitigated overfitting concerns by implementing data clustering strategies.
- Communicated findings to stakeholders via presentations and data visualizations, extracting actionable insights from data and model performance metrics.
- Leveraged AWS for model training and deployment, contributing to scalable solutions.
- Wrote shell scripts for automating and managing model training on company GPU clusters.
- Performed initial data exploration as well as data cleaning, transformation, and aggregation for training models.
- Partnered with biologists, statisticians, and bioinformatics SMEs to evaluate data availability and existing ML frameworks, devising strategic plans for the development of impactful new models aligned with organizational goals.
- Developed Python-based tools enabling company-wide access to trained models for tasks, such as in silico evolution, streamlining adoption and extending model utility across teams.

Data Scientist - Infinia ML, Durham, NC
2022 - 2023

- Led industry research on medical document data extraction, authoring a comprehensive white paper to guide future projects.
- Compiled public annotated and raw medical document datasets for NLP model training.
- Built and standardized large datasets (100k+ records) using DVC, ensuring data consistency and accessibility for model training.
- Implemented critical functions for parsing medical documentation in Python back-end NLP document processor suite.
- Utilized SQL databases for efficient data storage and retrieval.

Machine Learning Assistant - Syngenta, Durham, NC
2021 - 2022

- Developed a deep learning, transformer-based model, outperforming prior ML model and saving hundreds of man-hours in the bioinformatics team.
- Per the team lead, ”Reed’s recent success in [this project] can be considered a breakthrough for Syngenta in adapting models from the public domain.”
- Conducted in-depth statistical analyses, revealing critical insights into relationships between DNA sequences, protein structures, and gene expression.

- Contributed to data processing and model training efforts with Python and deep learning frameworks like TensorFlow and PyTorch.

Project Engineer - UL Inc., Durham, NC
2016 - 2019

- Assessed the safety of medical devices, ensuring compliance with industry safety standards and regulations.
- Conducted hands-on testing, engineering analysis, risk assessments, and technical documentation.
- Managed projects independently while collaborating with teammates and cross-departmental engineers, requesting specialized testing procedures from subject matter experts.
- Communicated directly with clients to provide updates, discuss results, and advise on modifications to achieve compliance.
- Gained expertise in regulatory compliance, project management, and client relationship management within the medical device sector.

Associate R&D Mechanical Engineer - TransEnterix, RTP, NC
2015 - 2016

- Contributed to the design and development of the next-generation surgical robotic system as part of the advanced R&D team.
- Designed mechanical components using SolidWorks and machined prototypes for testing.
- Built and automated test fixtures using Python, performing statistical analysis on test data with Minitab to evaluate strength and durability.
- Successfully redesigned a surgical implement to mitigate electrical induction risks, enhancing safety and reliability.
- Worked closely with multidisciplinary teams, primarily assisting mechanical engineers in component development.
- Gained valuable exposure to the healthcare industry and advanced mechanical design principles.

EDUCATION

Master's Degree in Computer Science (Data Science Concentration)
NCSU, Raleigh, NC (08/2020 – 05/2022)

Bachelor's Degree in Mechanical Engineering
NCSU, Raleigh, NC (08/2013 – 05/2015)

Bachelor's Degree in Engineering Physics
Elon University, Elon, NC (08/2010 – 05/2015)

SKILLS

- ***Programming Languages****: Python, SQL*
- ***Machine Learning & AI****: Deep learning, Neural Networks, NLP, statistical analysis, transformers (e.g., BERT), LLMs*
- ***Frameworks & Libraries****: TensorFlow, PyTorch, Keras, Pandas, NumPy, SciPy*
- ***Cloud Computing****: AWS*
- ***Databases****: SQL*
- ***Visualization Tools****: Matplotlib, Seaborn, Plotly*
- ***Software Tools****: Git, DVC, Jupyter Notebooks*

CONSULTING & INDEPENDENT PROJECTS

Advanced Generative AI Course Instructor (Part-Time) - Simplilearn, Remote
2025 - Present

- *Teach and mentor cohorts of professionals in generative AI, focusing on applied machine-learning workflows, LLM architectures, and prompt-engineering best practices.*
- *Deliver live, interactive sessions aligned with curriculum objectives; guide students through hands-on projects involving model fine-tuning, evaluation, and deployment using tools such as Python, PyTorch, and Hugging Face.*
- *Translate complex AI concepts into accessible, industry-relevant lessons, reinforcing data-driven problem-solving, ethical AI principles, and reproducible research practices.*
- *Provide individualized feedback and performance reviews to support skill mastery and career readiness.*
- *Foster a collaborative learning environment emphasizing experimentation, critical thinking, and continuous improvement in model-building workflows.*

Independent Data Science and ML Consultant
2025 - Present

- Supported a consulting firm in evaluating potential partnership projects for external clients, providing early-stage technical assessments.
- Supported a consulting firm in evaluating potential partnership projects for external clients, providing early-stage technical assessments.
- Advised on the feasibility of machine learning initiatives, including appropriate model types, data requirements, development scope, and resource planning.
- Benchmarked existing products and platforms to inform strategic decisions on competitiveness and practicality.
- Completed self-guided training on Google Cloud Platform (via company-provided resources), gaining hands-on familiarity with BigQuery, Vertex AI, Cloud Storage, and Compute Engine.
- Contributed to aligning potential technical solutions with business objectives and scalability considerations.

Traffic Prediction

- Developed a LSTM model for predicting traffic volume, average speed, and density from 3-year records of traffic data.
- Conducted initial data analysis and visualization, data cleaning, and feature engineering, incorporating features such as time of year, week, and month; weather; road surface conditions; visibility; and local holidays.
- Achieved R-squared values for volume, density, and average speed of 0.96, 0.91, and 0.56 respectively for next-step forecasting.