Bhumika Srinivas

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EDUCATION

Master of Science in Data Science

Jul 2023 - Jun 2024

University of San Francisco

San Francisco, CA

Relevant Coursework: Machine Learning, Deep Learning, Data Acquisition, Statistics, Distributed Computing

Bachelor of Science in Data Science

Aug 2019 – Dec 2022

University of San Francisco

San Francisco, CA

PROFESSIONAL EXPERIENCE

Data Scientist Oct 2023 - Jun 2024

UCSF Medical Center - Radiation Oncology

San Francisco, CA

- Optimized over 12 million words of cancer patient clinical notes and EHR data through meticulous preprocessing, achieving a remarkable 25% text reduction for enhanced data efficiency.
- Engineered two advanced pipelines for hierarchical segmentation using encoder-driven transformer models, resulting in an 8% accuracy improvement with XGBoost over Logistic Regression and Random Forest models, enhancing early disease detection for over 5000 patients and optimizing their treatment plans as an intern.
- Strategically segmenting lengthy documents to overcome token limits in models resulted in a 30% reduction in computational overhead, thereby enhancing processing efficiency and lowering GPU utilization while maintaining contextual coherence.
- AAPM abstract submission: Explored Baseline MPT-7B and fine-tuned clinicalBERT; revealed LLMs don't inherently enhance EHR notes' predictive accuracy, advocating for fine-tuned models in diverse cancer patient notes.

Data Scientist Feb 2023 – Jun 2023

ReshaMandi

Bangalore, India

- Enhanced silk farm profits by 37% (\$8,000 monthly) with an Amazon SageMaker-based machine learning model, deploying a serverless inference pipeline and integrating it into a Kafka consumer pipeline for optimal cocoon procurement decision-making.
- Implemented a Tableau project in collaboration with the engineering team, utilizing Snowflake SQL queries to create a dynamic dashboard that resulted in a 25% reduction in turnaround time (TAT) for logistics processes for the 17-member SCM team.
- Optimized Neo4j Cypher queries for existing knowledge graphs, achieving a 40% performance boost and saving 21 hours weekly, thereby expediting information retrieval, enhancing data accessibility, and improving decision-making capabilities as an intern.

Data Analyst Jun 2022 – Aug 2023

Object Edge

Walnut Creek, CA

- Increased sales by 40% by leveraging insights via R-based RFM analysis, evaluating customer satisfaction and targeting specific demographics based on order dates, monetary value, and product quantity, managing a dataset of over 11 million records.
- Enhanced website order checkout efficiency by 55% through Market Basket Analysis using Python, optimizing product placement and encouraging targeted sales combinations as an intern.
- Designed and presented a Tableau dashboard for Zenni Optical, visualizing 5 key business KPIs, leading to actionable insights into Gross Merchandise Value and Order Revenue.

Data Analyst *Mar 2022 – Dec 2022*

University of San Francisco

San Francisco, CA

- Led multiple data visualization research projects employing Qualtrics, R, Python, Excel.
- Presented findings to the University of Nottingham team which involved conveying insights, methodology, and implications, fostering collaboration and knowledge exchange within the academic community.
- Published a co-authored research paper on treemap literacy, accepted by Eurographics Education 2023 Papers.

PROJECTS

- Deep Learning Image Segmentation of Microscopy Images
 - Placed first in this <u>Kaggle Competition</u>. Customized U-Net neural network using TensorFlow, incorporating strategic layer variations to achieve unparalleled accuracy in predicting biomedical microscopy images of cells.
- Distributed Data Systems with Spotify Web API- Apache Airflow, MongoDB, SparkSQL, and Google Composer
- Developed and deployed an <u>automated data pipeline using Airflow on Google Composer</u> to create a localized social media platform for small friend groups, enabling users to connect their Spotify accounts, share listening history, and conduct analytics.

TECHNICAL SKILLS

Python (Matplotlib, SciPy, Plotly, Scikit-Learn), Java, SQL (Postgres, Snowflake), Git, GitHub, PyTorch, TensorFlow, BeautifulSoup, RegEx, Time Series Forecasting, A/B Testing, PySpark (Databricks), Airflow, NoSQL (MongoDB), R (tidyverse, ggplot2), LaTeX, GCP, AWS

CERTIFICATES Data Institute Award (Outstanding Graduating Senior in Data Science), AWS Certified Cloud Practitioner