Benedict Neo

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Education

Iowa State University — Expected: Dec. 2023
Bachelor of Science, Major: Statistics, Minor: Computer Science — *Ames, IA*
- Cumulative GPA: 4.0
- Coursework: Experimental Design, Probability and Statistics I & II, Data Structures & Algorithms, Discrete Math

Experience

Tesla — May 2022 – Aug. 2022
Data Science Intern — *Fremont, CA*
- Developed and revamped 10 PowerBI dashboards tracking KPIs for various operations and systems within the factory
- Reduced PowerBI dashboard data refresh time by 80% through data model improvements and optimized DAX queries
- Applied NLP techniques to work orders, resulting in the creation of failure codes for improved asset failure insights
- Investigated work orders and identified opportunities to save $100,000/year in preventive maintenance costs
- Conducted time series analysis to detect anomalies and trends in the cooling tower systems at the factory

Iowa State University — Jan. 2022 – May 2022
Undergraduate Research Assistant — *Ames, IA*
- Developed and contributed to 🔗 WEPPR, an R package that emulates the Water Erosion Prediction Project model
- Wrote functional code in R (Tidyverse) to clean and transform 2TB of raw slope, soil, and climate data into tidy format
- Performed exploratory data analysis with principal component analysis (PCA) to identify hidden patterns in the data
- Ran R scripts in a Linux environment to perform complex data transformations with custom functions and packages
- Implemented unit and functional tests, and documented code according to best practices with testthat and roxygen2

bitgrit — Aug. 2021 – Dec. 2021
Data Science Intern — *Remote*
- Led data collection and cleaning efforts, and developed end-to-end solutions for data science competitions
- Managed the company data science publication, publishing over 30 technical articles with over 500,000 views 🔗
- Taught a workshop on best practices and common tasks for data cleaning in Python to over 50 attendees

Projects

🔗 **GPT-3 Blog Title Optimizer** | *Python, Selenium, BeautifulSoup, OpenAI, Weights & Biases, BigQuery, SQL, Streamlit*
- Scraped 200k blog articles from medium.com with Selenium and BeautifulSoup and ingested data into BigQuery
- Utilized OpenAI's API to fine tune GPT-3 to classify article titles and tracked experiments and dataset with W&B
- Containerized the application with Docker and deployed the model as a web app using Streamlit for users

🔗 **Energytics** | *Python, Streamlit, Pandas, Plotly, Scikit-learn, LightGBM, OpenWeatherMap API*
- Led a team of 6 to build a web app that visualizes energy production cost and building energy usage in the US
- Conducted EDA on 60 million records with 18 features to investigate trends, outliers, missing data, and anomalies
- Trained and deployed a LightGBM model to predict building energy usage based on user location and building details

🔗 **LinkedIn Insights** | *Python, Streamlit, Pandas, thefuzz, Plotly, Pyvis, Networkx*
- Developed a web app with 500+ users that allows them to gain insights into their LinkedIn connections
- Applied advanced data cleaning techniques, including fuzzy matching, to improve the accuracy of insights
- Visualized user connections and messages with interactive bar charts, time series plots, and network graphs

Skills

Languages: Python, R, SQL, SAS, JavaScript (React), Java, HTML/CSS, Bash
Libraries: Pandas, NumPy, Matplotlib, Plotly, Tidyverse, ggplot2, scikit-learn, LightGBM, NLTK, PyTorch
Tools: AWS, Google Cloud, Docker, Power BI, Tableau, Looker, Git, Linux, MongoDB, Excel, JIRA, Confluence
Data Science: Data cleaning, Data visualization, Hypothesis Testing, Regression, Classification, NLP

Leadership

President of Google Developer Student Club — Aug. 2022 - Present
Iowa State University — *Ames, IA*
- Led a team of 12 core team officers to organize and host tech workshops and talks to over 100 students