

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 optimized 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 to create failure codes, enabling more accurate analysis of asset failures
- Investigated work orders and identified opportunities to save \$100,000/year in preventive maintenance costs
- Conducted time series analysis on the factory cooling tower systems to identify anomalies and potential problems

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

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

🐙 Readabl | JavaScript, Python, Svelte, FastAPI, Google Cloud, BeautifulSoup, NLTK Docker

- Led a team of 3 to build a web app that offers readability metrics for google search results with the custom search API
- Implemented concurrent processing in the FastAPI backend to parse webpages in parallel and improve search speed
- Coded Svelte components to call the backend to receive search results and display results in an accesible format

🐙 Energytics | Python, Streamlit, Pandas, Plotly, Seaborn, 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 with user location and building details

🐙 LinkedIn Insights | Python, Numpy, Streamlit, Pandas, thefuzz, Plotly, Pyvis, Networkx, NLTK, wordcloud

- 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