Benedict Neo

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Education

Iowa State University Ames, IA
Bachelors of Science in Statistics, Minor in Computer Science *May 2023*

- Cumulative GPA: 4.0
- Relevant Coursework: Probability and Statistics, Object-Oriented Programming, Data Structures, Discrete Mathematics, Design and Analysis of Algorithms
- Statistics Department Undergraduate Scholarship ($1,000 awarded)

Skills

Programming Languages: Python, R, SQL, Java, JavaScript (React), HTML/CSS, Bash
Libraries: Pandas, NumPy, Matplotlib, Plotly, Tidyverse, ggplot2, Scikit-Learn, LightGBM
Tools: SPSS, Excel, Tableau, Power BI, Git, Linux, MongoDB, Google Cloud Platform, AWS, Docker
Data Science: Data cleaning, Data visualization, Hypothesis Testing, Regression, Classification

Professional Experience

Data Science Intern Jan. 2022 – Present
bitgrit Inc. *Tokyo, Japan*

- Analyzed social media and blog post traffic and built a dashboard to track essential KPIs
- Managed data collection and preprocessing, and formulated solutions for data science competitions
- Published technical data science and machine learning articles with over 300,000 views
- Taught 50+ people best practices and common tasks for data cleaning in Python in a workshop

Undergraduate Research Assistant Jan. 2022 – Present
Iowa State University *Ames, IA*

- Assisted ISU Statistics Professor, Jarad Niemi, in the development of WEPPR, an R package that uses a Gaussian Process model to prediction soil erosion by simulating the the Watershed Erosion Prediction Project (WEPP) outputs
- Wrote functional code in R (Tidyverse) to clean and transform 2TB of raw soil and land data into tidy format
- Utilized Object-oriented programming principles to create classes that validates and preprocess data
- Developed unit and functional tests to ensure proper functioning of code with the testthat package
- Authored clear documentation for functions and classes in the package with roxygen2

Projects

Energytics | *Python, Streamlit, Pandas, Plotly, Scikit-learn, LightGBM, OpenWeatherMap API* Mar. 2022

- Built a web app that presents insights on energy production cost and building energy usage in the US
- Designed interactive visualizations on energy production cost by US states and various energy sources
- Conducted EDA on 60M records with 18 features to investigate trends, outliers, missing data, and anomalies
- Performed feature preprocessing and generation to extract additional features from temporal and weather data
- Trained and deployed a LightGBM model to predict building energy usage from user location and building details

Ensurance | *Python, Streamlit, Pandas, Google Cloud, Plotly* Feb. 2022

- Awarded Best Healthcare Hack Powered by Anthem for Georgia Tech's 36 hour datathon
- Led a team of 4 to build an interactive web app that evaluates health risks based on user demographics
- Aggregated data from multiple sources and performed data cleansing for analysis and visualization

LinkedIn Insights | *Python, Streamlit, Pandas, thefuzz, Plotly, Pyvis, Networkx* Jan. 2022

- Developed a web app with **500+ users** that allows them to gain insights into their LinkedIn connections
- Utilized fuzzy matching to clean and manipulate raw user data for more accurate insights
- Visualized user connections with interactive bar charts, time series plots, and network graphs

Next Word Prediction | *R, Shiny, Tidytext, Tidyverse, ggplot2, dplyr* Aug. 2021

- Created a Shiny web app for users to input text and obtain multiple next word predictions
- Analyzed and cleaned over 4 million lines of text corpus data sourced from news, tweets, and blogs
- Utilized the Katz Back-Off (KBO) language model and Markov Chains to generate next word predictions

COVID-19 Dashboard | *R, Flexdashboard, Tidyverse, Plotly, Docker* Feb. 2021

- Informed users of key metrics and trends of COVID-19 worldwide with interactive maps and charts
- Implemented automatic daily updates to dashboard using Github Actions and Docker