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| **Projects and Portfolio** |

* Role: **Full Stack Python Developer**

Project: Web Application (Meteorology)

Development, integration and deployment of weather application. This includes designing both the frontend and backend, integration of Openweathermap APIs in the right data structure and matric into the application.

Technologies used: Frontend: HTML, CSS, Bootstrap, and python; Backend: Flask, MySQL, REST API; Hosting: AWS

* Role: **Full Stack Python Developer**

Project: Web Application (e-Commence)

Development, integration and deployment of an e-commence web applications. This includes designing both the frontend and backend, implementation of authentication via sign-in, admin pages, emailing system and database design. I also implemented CRUD for users, add-to-cart, dashboard for personalized list of products bought in the past and receipt download capabilities.

Technologies used: Frontend: HTML, CSS, Bootstrap, jQuery, python and JavaScript; Backend: Django, PostgreSQL, REST API; Hosting: AWS

* Role: **Full Stack Python Developer || Data Scientist**

Project: Web Application (IT Consulting and Training)

Development, integration and deployment of web applications. This includes designing both the frontend and backend, implementation of authentication via sign-in, admin pages, emailing system and database design. I also implemented sample prediction models as well as integration of the website with blog pages, user profile update, dashboard for personalized list of courses registered for and certificate download capabilities.

Technologies used: Frontend: HTML, CSS, Bootstrap, jQuery, python and JavaScript; Backend: Flask, MySQL, REST API; Hosting: PythonAnyWhere; Domain: Godaddy; Mailing: Zoho

* Role: **Data Scientist**

Project: Customer Segmentation (Fintech)

Development of data warehouse, data pipeline, stored procedures and triggers and data wrangling of bank customer segmentation to gain insight on most valued customer and enabling targeted marketing mix to gain growth and sustainability.

Technologies used: MSSQL Server, Python, SQL, Power BI

* Role: **Data Scientist**

Project: Weather Forecasting Application (Meteorological)

Design and development of a weather forecast application and integration with Open-source weather data through API call. The application will show geospatial data by countries and cities

Technologies used: Python, Flask, API, HTML, CSS, JavaScript, Bootstrap

* Role: **Full Stack Python Developer**

Project: Web Application (Real Estate, Logistics and Oil & Gas)

Development, integration and deployment of web applications. This includes designing both the frontend and backend, implementation of authentication via sign-in and 3rd party authentication like google and linkedIn, admin pages, emailing system and database design. The app is integrated with user profile update, news publishing, investment membership, pricing and payment system capabilities.

Technologies used: Frontend: HTML, CSS, Bootstrap, jQuery, python and JavaScript; Backend: Django, PostgreSQL, REST API; Hosting: TBD (Heroku); Domain: Godaddy; Mailing: Google; Payment system: Stripe

* Role: **Full Stack Python Developer**

Project: Web Application (Furniture, Logistics, Freight forwarding, Healthcare and Beauty) Development, integration and deployment of BAWS website. This includes designing both the and 3rd party (Google, LinkedIn, etc.), admin pages, emailing system and database design and integration. Creating user profile update, care booking and appointment scheduling capabilities. Integrating affiliate websites into the group website.

Technologies used: Frontend: HTML, CSS, Bootstrap, jQuery and JavaScript; Backend: Django, PostgreSQL, REST API; Hosting: TBD (AWS); Domain: Godaddy; Mailing: Google

* Role: **Data Scientist**

Project: Data Analytics (Credit Risk/Interest rate determination)

It involves an application of machine and deep learning algorithms to determine

who is likely to default and what risk rate should apply.

Single handedly performed data preprocessing, data normalization/standardization and splitting, algorithm development and evaluation, feature extraction and classification, and prediction. This followed by the deployment into a web application.

Technologies used: Data analytics: Python, pandas, matplotlib, seaborn, numpy, scipy, sklearn, tensorflow, ML&DL classifiers, pickle; Frontend: HTML, CSS, Bootstrap, jQuery, python and JavaScript; Backend: Flask, Hosting: pythonanywhere; API: REST API, Postman

* Role: **Data Scientist**

Project: Research (Heart-rate for Authentication)

It involves an investigation to determine if heart-rate could be appropriate for authentication. Single handedly performed data integration from multiple sources, preprocessing, feature creation, data normalization/standardization and splitting, algorithm development and performance evaluation using different scoring methods, feature extraction and classification.

Technologies used: Data analytics: Python, pandas, matplotlib, seaborn, numpy, scipy, sklearn, tensorflow, ML&DL classifiers

* Role: **Data Scientist**

Project: Research (An Investigation of family income and expenditure in relation to Real-Estate prices across different geographical locations)

This involves an application of machine and deep learning algorithms to determine an average expenditure of household based on location. Similarly, an average property price can also be determined.

Role (Data Scientist): performed data preprocessing, data normalization / standardization and splitting, algorithm development and evaluation, feature extraction and classification, and prediction. This followed by the deployment into a web application.

Technologies used: Data analytics: Python, pandas, matplotlib, seaborn, numpy, scipy, sklearn, tensorflow, ML&DL classifiers, pickle; Frontend: HTML, CSS, Bootstrap, python and JavaScript; Backend: Flask, Hosting: pythonanywhere; API: REST API, Postman

* Role: **Data Scientist**

Project: Research (Malware prediction research)

Involves an investigation and deployment of best prediction model to predict malware invasion in a SCADA systems. Handled data preprocessing, data normalization/standardization and splitting, algorithm development and evaluation, feature extraction and classification, and prediction Technologies used: Data analytics: Python, pandas, matplotlib, seaborn, numpy, scipy, sklearn, tensorflow, ML&DL classifiers.

* Role: **Data Scientist**

Project: Numerous Interactive data visualization projects.

Implemented various data visualization projects for business intelligence reporting. Some of which were integrated into web app as dashboard.

Technologies used: Backend: Flask, Django, D3.js, MySQL, pandas, pyspark, matplotlib, seaborn, numpy, Plotly, Plotnine (ggplot), Bokeh, Pygal, Geoplotlib, Missingno, Gleam, turtle, etc; Frontend: HTML, CSS, Bootstrap, JavaScript.

* Role: **Full Stack Python Developer**

Project: Fintech (know-your-customer KYC) application.

Led the design and implementation of a know-your-customer application in a banking sector. Built several APIs for integration into base application.

* Role: **Full Stack Python Developer**

Project: Healthcare (Optimization of Code base)

Integrated database system and optimized code-base for a client in healthcare sector for ease of access and retrieval of information.

* Role: **Machine Learning Engineer**

Project: Research (Malicious URL prediction research)

Involves an investigation and deployment of best prediction model to predict legitimacy of a given URL. Handled data preprocessing, data normalization/standardization and splitting, algorithm development and evaluation, feature engineering and classification, and prediction

Technologies used: Data analytics: Python, pandas, matplotlib, numpy, scipy, sklearn, ML classifiers.

Web Application: Flask, HTML, Bootstrap, CSS, Python. Deployed to existing Application