BRIAN A. SWARD
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PYTHON DEVELOPER | DATA ANALYST | SOFTWARE ENGINEER

Python developer and Marine Corps veteran possessing fluidity in mathematics and over 15 years of delivering impactful decisions through data and research in the corporate, federal government, and defense contracting sectors. Comprehensive background in Python Development, Javascript, Information Analysis, Complex Critical Thinking, Business Administration, Cross-Functional Collaboration, Technical Instruction, Management Information Systems, Database Management, Exploratory Data Analysis, and Quantitative and Qualitative Analysis. Passionate about how software engineering can enhance the quality of life. Eager to leverage the ethea of continuous education, adaptability, accountability, and advanced exposure to analysis methodologies ultimately seeks gainful employment and mental stimulation in the constantly changing software engineering field.

TECHNICAL SKILLS

Languages: Python, Javascript, JSON, CSS, HTML, R, MatLab, SQL, Markdown, C++

Skills and Tools: PyCharm, VS Code, Jupyter, Django REST API, CI/CD, GitHub, Pandas, SciKitLearn, Docker, BeautifulSoup, Excel, Google Sheets, Tableau, WSL, Ubuntu, NumPy, Django, MongoDB, Matplotlib, Seaborn, Chart.JS, Certified Lean Six Sigma and Google Project Management, Budget Analysis, API Engineering, Data Mining, Data Cleaning, Data Visualization, Database Management, Cross-Functional Collaboration, Technical Instruction, Agile and Waterfall Methodologies, Exploratory, Quantitative, and Qualitative Data Analysis.

EDUCATION | CERTIFICATIONS

Bachelor of Arts (B.A.) Mathematics | Wesleyan University | 2011

Lean Six Sigma Green Belt Certification | Syracuse University | 2022
Google Data Analytics Certification | Google | Coursera | 2022
Google Project Management Certification | Google | Coursera | 2022
Advanced Software Development in Python Certification | Code Fellows | 2023
Certified ScrumMaster (CSM) Certification | Scrum Alliance | 2023

KEY PYTHON PROJECTS

Fake News Detector

Tech Used: Python, Jupyter/Kaggle, Machine Learning, Web Scraping, Pandas, Numpy, BeautifulSoup, JSON, Request, Spacy, Trafilatura, Data Processing, Data Pipelining, Text Extraction
Purpose: This uses numpy, pandas, and scikit-learn (sklearn) to read and preprocess a dataset of news articles to train on. The code prompts the user to input a URL and then extracts the text content from the page using BS and Traf. Finally, it outputs the predicted label (fake or real) for the extracted text using the previously trained model.

Flask User Post API

Tech Used: Python, Flask, JSON, Jinja, Pytest, API Creation, Data Formatting
Purpose: A Flask application that defines an API endpoint for receiving user posts. The /user-post endpoint accepts a JSON payload containing a username and text field, restructures the data, and returns it as a JSON response.

Website Portfolio

Tech Used: Python, Flask, JSON, HTML, Bootstrap, CSS

Purpose: Portfolio built in Flask to provide a simple interface with clean delivery of information or static files like photos or resumes. The site is primarily automated via a JSON file to allow content updates without touching HTML. Thus allowing non-tech-savvy end users more control over their site's content without professional web services.

Mortgage Data Analysis

Tech Used: Python, Machine Learning, Jupyter/Kaggle, Django, Numpy, Pandas, MatPlotLib, Tailwind, Next.js

Purpose: Web application that performed Logistical Regression on publicly available data to determine loan approval likeliness for a loan given information about the loan requester.

Chess Board Checker

Tech Used: Python, Jupyter/Kaggle, Numpy, Pandas, MatPlotLib

Purpose: To determine if two randomly placed chess queens can "see" one another and then return a graphical representation for visual confirmation and a Boolean response.

Housing Hunter Hero

Tech Used: Python, BeautifulSoup, Web Scraping, JSON, HTML, Data Pipelining

Purpose: Created to get a quick, simple list of available properties with details and URL to the listing by taking in a user-supplied zipcode, scraping a well-known real estate site for data, and returning that information formatted for use by the user.

PROFESSIONAL EXPERIENCE

Sage Door Holdings| Seattle, WA **2018 – 2022**

Business Application Developer | Analyst

Operated as Director of New Products. Provided aid to senior executive leadership in the bidding process and production estimates to bring new ideas to market through software-driven strategies.

- Developed via CI/CD a data-oriented business application that employed advanced Excel/VBA formulae to optimize and generate per-unit profit margins on future products. This model secured a 14 million dollar contract for more than 40% of our market in late 2018.
- Utilized Python to refine the above application by mass editing, duplicating, or creating spreadsheets automatically for new products via Google Sheets API and Jupyter.
- Coordinated; all production sprints, product design liaison with external stakeholders, sourcing, project management, and project closures.

Managing Director

Responsible for multiple processing plants and farms throughout Oregon and Washington.

- Created data-driven dashboards in Google Sheets that displayed production metrics, output visualizations, cost per unit, individual worker productivity, production estimates, and time remaining to produce.
- Developed and employed an application that utilized advanced statistical analysis to assess farm profitability for investors.

Circanna LLC| Seattle, WA **2015 – 2018**

General Manager | Operations Manager

Utilized skills such as data analysis, spreadsheets, budget analysis, and logistical management to make effective company decisions while in adherence to local, state, and federal regulations.

- Led a data mining initiative via agile management to retrieve and render operational business intelligence, which increased sales by over 400% in the 12 months after program completion.
- Used Lean Tools (5s, Poka-yoke, Gemba, Kanban, JIT/Pull Manufacturing) to reduce steps, eliminate waste, and initiate continuous improvement principles.