# **OSCAR CARDEC**

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## **PROFESSIONAL SUMMARY**

Highly experienced Data Scientist and Machine Learning Engineer with over 20 years of experience across data analysis, visualizations, machine learning, deep learning, and Generative AI. Specializing in data exploration, data cleaning, data analysis, data visualization, and data mining, with both structured and unstructured data sources. Expert in developing complex visualizations and leveraging advanced machine learning techniques to solve global challenges. Proven ability to translate complex data insights into actionable information for decision-making in public and private sectors, including national intelligence and fraud detection. Active TS security clearance and extensive experience supporting DoD clients.

#### **CORE COMPETENCIES**

Machine Learning

Generative AI

o Intelligence Analysis

Critical Thinking

Data Exploration

o Predictive Modeling

Decision Analysis

Continuous Learner

Statistical Analysis

Data Visualization

Big Data Mining

o Data Strategist

#### PROFESSIONAL EXPERIENCE

### Webworld Technologies, Inc. (WTI)

Data Scientist – Data Engineering Strategist

Jul 2023 - Present

- Directed cloud solution research, market analysis, and data migration, ensured operational integrity.
- Steered Enterprise Data Management Plan review and implementation in support of the ACC & DAF.
- Developed strategies for data catalog and data governance in line with DoD VAULTIS guidelines.
- Overhauled ML practices and data mining strategies; standardized decision-making, workflow analysis.
- Created and optimized data taxonomies/ontologies, and audited cloud capabilities for analytical solutions.

#### **GovCIO**

Data Scientist - Machine Learning Specialist

Feb 2023 - Jul 2023

- Directed machine learning projects, utilizing data mining and anomaly detection to uncover insights.
- Led quantitative analysis using operations research tools and time-series forecasting.
- Conducted training on Splunk MLTK and integrated it into daily operations.

## Deloitte & Touché, LLP

Lead Data Scientist

*Apr* 2021 – Feb 2023

- Spearheaded data analysis for DHS/CBP, optimizing asset allocation through historical data insights.
- Implemented machine learning models and provided mentoring to junior staff.
- Developed K-means algorithms for public health initiatives and led analytic proof of concept projects.
- Advanced analytic practices for ACC/A3 FORGEN, improved data strategy and source ingestion.
- Conducted social network analysis, topic modeling, and sentiment analysis, advanced analytical practices.

Data Science Intern Oct 2020 – Jan 2021

• Sustained national security operations by employing novel natural language processing (NLP), social media & web content scraping, topic mining, and sentiment analysis techniques.

• Utilized EDA tradecraft & ML procedures to uncover hidden data, meeting client's information requests.

### U.S. Air Force

Intelligence Analysis Functional Manager

May 2019 - Mar 2021

- Managed intelligence collection functions, improving operational capabilities by 85%.
- Delivered over 1200 intelligence briefs to senior leadership.
- Directed the allocation and training of 2,600 Intelligence Analysts, enhancing workforce efficiency.

Intelligence Operations Manager

Feb 2017 - May 2019

- Provided critical recommendations, reducing operational errors by 80%.
- Supervised 1,300 personnel in ISR missions and managed DCGS programs.
- Led joint teams in foreign missile analysis and multi-source data extraction.

Senior Intelligence Analyst

*May 2014 – Feb 2017* 

- Oversaw counterterrorism operations, assessing global targets and cyber objectives.
- Directed counter-proliferation missions, leading to international sanctions.
- Coordinated Force Protection across national organizations, ensuring the safe return of personnel.

#### **EDUCATION**

Master of Science, Data Analytics University of Maryland Global Campus, College Park, MD

- Researched and integrated data support vector machine (SVM) and k-nearest neighbors (KNN) heuristic
  algorithms to enhance Federal Aviation Administration's NextGen R&D Office aircraft's lateral deviation
  anomaly detection tools.
- Designed Conditional Inference Tree and Random Forest for classification and interpretation of CTGs, optimizing identification of at-risk newborns and their mothers.
- Developed an irregular-cells Convolutional Neural Network (CNN) predictive model for early detection of breast carcinoma.
- Classified Landsat images using K-means model, baselining image study with vector/centroid pixeldimension features.

Bachelor of Science, Information Technology Management American Military University, Charles Town, WV

#### TECHNICAL COMPETENCIES

Data Science Stack: AWS, Azure, beautifulsoup, C#, caret, datawrapper, docker, dv-api, faker, GCP, geopandas, git, ggmap, gmodels, googlevis, ggvis, graphDB, H<sub>2</sub>O, IBM cognos analytics, iml, jupyter notebook, keras, korpus, label studio, matplotlib, mobi, mysql, nltk, numpy, oneR, pandas, parallel, plotly, Power BI, protégé, pyspark, Python, pytorch, quanteda, quarto, ranger, R, Rstudio, SAS E-miner, scikit-learn, scipy, scrapy, seaborn, selenium, shiny, simpy, sdv, splunk mltk, spyder, spacy, sql, sqlite3, statsmodels, Tableau, TensorFlow, Tesseract OCR, tidygraph, tidyverse, tm, vip, vs code, xgboost, zoo