

# Eric James Engleman

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## WORK EXPERIENCE

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### **Deloitte Risk Advisory – Forensic Analytics Consultant**

**2018-Present**

#### *Advanced Analytics Project*

- Current-state assessment of a large machinery manufacturer's warranty management capabilities.
- Reviewed data, processes, policies, and technologies via interviews and client-provided documentation.
- Utilized Python and SQL to test and validate hypotheses of warranty leakage and automation opportunities within the warranty claim adjudication process, audit process, and supplier recovery. Techniques included Natural Language Processing (NLP), outlier analysis, clustering, and other ad-hoc analyses.
- Created dashboards to visualize insights from the analyses in Microsoft Power BI.
- Worked with Process team to collaborate on combining the insights into a final deliverable presentation with a business case for the client.

#### *Advanced Analytics Project*

- Utilized artificial intelligence and machine learning-based techniques to detect fraud, waste, and abuse in warranty claim data.
- Conducted interviews with the client to better understand the data lake and warranty claim submission systems and processes along with the data flow and structure.
- Performed data preprocessing (curation and feature engineering) using Python in a high-performance cloud-computing environment (AWS).
- Performed exploratory analysis and created visualizations to drive insights using Tableau and identify uncommon and/or anomalous behavior within individual claims or by dealer.
- Built a dynamic framework to assign a risk score to each individual claim using rule-based and predictive models.

#### *Analytics Investigation Projects*

- ETL process from different data sources.
- Performed data cleansing and validation throughout the source data.
  - Identified data irregularities, duplicate entries, reconciled invoices and payments, and performed other ad-hoc analyses.
- Performed data analysis to find potential evidence of fraud amongst vendors and a matching analysis between invoices and payments while consolidating data from two sources.
- Built reports from these analyses all utilizing SQL Server Management Studio and dashboards utilizing Tableau.

#### *Anti-Money Laundering Projects*

- Performed an Anti-Money Laundering model validation on a large international bank.
  - Replicated the bank's ETL process in SQL Server using provided documentation to assess data completeness and integrity.
  - Replicated scenario logic in Oracle SQL Developer to test the functionality of the implemented scenarios.
- Performed the ETL process to SQL Server databases and cleansed tables for analysis preparation.

- Generated AML alerts based on ten rules for entities / transactions from a three-year lookback period.
- Built and maintained the Research Page on Enterprise Case Management (ECM) and maintained / updated the Requirements page, both of which are critical tools for investigators accessing and storing data.
- Created Microsoft Report Builder reports using stored procedures in the backend of ECM for investigator use and reporting to Team Management and Clients.
- Created workflow conditions for progressing a case status in order to prevent data input and reporting issues.
- Resolved ad-hoc issues identified by front-end investigators.

#### *Quality Assurance Project*

- Acted as a report lead for performing back-to-front testing on the completeness, accuracy, and timeliness of the Liquidity Coverage Ratio international regulatory report and managed its day-to-day activities across three international teams including USI and a Deloitte - Ireland team.
- Tracking and monitoring progress, acting as the liaison between the project execution team and client, escalating issues to management, and acting as the report SME for other US LCR team members.
- Researched and analyzed the liquidity coverage ratio regulations and principles to produce the quality assurance test plan, including scoping considerations and the test steps to be executed.
- Performed testing around the accuracy and completeness assertions; as well as sample testing of the LCR return to substantiate system generated data used for reporting. Analyzed the workings of the LCR report and its manual adjustments to assess reasonableness and accuracy of its data to the source documentation, as well as the report to General Ledger reconciliation.

## **EDUCATION**

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### **The College of William & Mary**

- Master of Science in Business Analytics – Graduation May 2022

### **James Madison University**

- Finance Major / Business Analytics Minor – BBA – Graduated Cum Laude in May 2018
- Cumulative GPA: 3.6
- Dean's List: Fall 2014 through Spring 2016, Spring 2017 through Spring 2018
- Beta Gamma Sigma – (top 7% of College of Business)

## **COMPUTER SKILLS**

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- Deloitte client project experience and training in Python, SQL, Excel, Tableau, R, Power BI, Microsoft Report Builder