

## Dennis A. Osafo

[LinkedIn](#) • [Portfolio Website](#) • [Data Science](#) • [Data Architect](#)

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### EDUCATION

#### Saint Louis University

Graduation date: **May 2019**

*Bachelor of Science in Information Technology Management, Minor in Computer Science*

Coursework: Functionalities within network protocols and applications, Huffman Encoding (C++), Improve ticketing system for IT Help Desk, Algorithm Design, Database Design & Development ([Github](#)), BPMN, System Analysis & Design, data mining (research)

### PROFESSIONAL EXPERIENCE

#### Cerner Corporation

**Aug 2019 – Present**

##### Data Architect (Interface Engineer)

- Performed data quality review, collection, validation, normalization, logical mapping, and onboarding 2 CMS and 6 Claims and Enrollment, and 2 EMR data sources. Implement data pipelines and ETL processes for non-structured and structured data.
- Developed source validation and automated procedures for analyzing data by building Tableau dashboards and running SQL queries against onboarded sources. Deploy code for mapped data sources using modern DevOps and version control systems (GitLab, GitHub)
- Tested API and Python scripts for multiple clients to use to automate their uploads into the platform. Use Postman as a utility to test API by performing POST, PUT, GET, DELETE requests to access and use health data.
- Developed code to define programming logic for data wrangling and run HIVE queries on multiple data source types (Payer and EMR)

##### Data Analyst

- Developed SQL scripts, perform quantitative analysis with Tableau dashboards 20 or more clients (Healthcare Providers and Payers).
- Build workflows using JIRA to investigate, and propose resolutions for data related issues for multiple clients ([project management](#)).
- Engineered and contributed to troubleshooting guides for Data Architects.
- Lead troubleshooting walkthroughs and presentations, conduct meetings and communicate findings to multiple clients

#### Saint Louis University

##### IT Intern (IT Help desk center)

**Aug 2018 - May 2019**

- Built automated python script to tabulate gpu, cpu, network, memory, storage information for multiple machines.
- Managed and resolved network issues by retrieving network properties, configuration, latency, and packet information for troubleshooting purposes for 20 or more students.
- Deployed troubleshooting systems for managing student account issues for 50 or more students

### TECHNICAL SKILLS

**Artificial Intelligence:** NLP - Count Vectorization

**Machine Learning:** Naive Bayes Classifier, Data Mining, Data Analysis, decision trees, NLP, Convolutional Neural Network

**Project Management:** Scrum, JIRA, Kanban, Data Visualization for tracking JIRA issues

**Languages:** Python, SQL, R, R Shiny, Matlab, C++, JavaScript, C#, NodeJs, NoSQL, Bash/Shell Scripting

**Data Analytics:** visualization, A/B testing, profiling; time-series analysis, regression analysis; descriptive & inferential statistics

**Data Architect:** High-level proficiency in data onboarding, processing, data wrangling, ETL processes, API Testing (Postman), Database Management, Excel, JSON, XML, metadata management, data modeling, hadoop (hdfs), Apache Kafka, Hadoop, version control (git)

**Frameworks:** ES6, React, Google Analytics, Power BI, Hadoop, Spark, Git, GitHub, Tableau, AWS, Python(NumPy, Pandas, Scikit-learn, matplotlib, TensorFlow, seaborn, WorldCloud), PostgreSQL, MySQL, Map/Reduce, Hive, Kafka

### PROFESSIONAL & PERSONAL PROJECTS

#### Professional Projects [Github](#)

**Aug 2020**

- Developed a python script for cleaning headers of flat files ([script](#)) implementing an automated workflow to encode flat files for a healthcare payer
- Analyzed Tableau dashboards, run SQL queries and work with cross divisional and cross functional teams with an Agile mentality to perform health data checks for consistency, continuity, completeness, validity, quality, performance and referential integrity.
- Mentor 2 Engineers / Architects to provide knowledge on generating actionable insights through data.

#### Personal Projects

NLP: Twitter Sentiment Analysis (Skills: **Python**, Certification: [NLP Twitter Sentiment Analysis](#))

**Feb 2021**

- Engineered a pipeline to clean including removing stop-words and punctuation. Analyze tweets using WordCloud.
- Understand the intuition behind Naive Bayes classifiers. Train a Naive Bayes Classifier and assess its performance.

Predicting salaries with Decision Trees (Skills: **Python**)

- Read and pre-process data set on a sample size of Americans to predict salaries based on attributes such as marriage, occupation by building a decision tree using DecisionTreeClassifier class and tree.plot\_tree function from sklearn

Google IT Automation - Using Python to Interact with the OS (Skills: **Python, Bash Scripting, Linux**)

**Nov - Dec 2020**

- Automation python script using regex to analyze syslogs and generate reports based on information extracted from logs.
- Developed bash and python scripts to produce reports of system information (date, uptime, memory, storage, CPU), perform code

reviews, unit and integration testing using the unit test class.

Cloud Architecture with Google Cloud (Skills: **Linux, Bash Scripting**, Certification: [Google Cloud Fundamentals](#)) **Nov 2020**

- Deployed a LAMP Stack, using Google Cloud Launcher and configured a PHP test page into a Compute Engine instance.
- Utilize and learn GCP solutions - BigQuery, BigTable, Google Compute Engine, Google App Engine (GAE)
- Built a virtual machine instance and installed a simple web server using the command line in a Compute Engine instance.

Preparing Data for Machine Learning Models (Skills: **Python**, [script](#))

**May 2021**

- Developed python script to extract features from an image and feed those features to a Machine Learning model

Analyze Website Visitors with Google Analytics Segments (Skills: **Google Analytics**, Certification: [Website Visitors](#))

- Effectively use system segments, create and use custom segments in Google Analytics for Deeper Analysis

Simplify data pipelines with Apache Kafka

- Understand the Kafka Architecture, its components, and some associated use cases. Utilize the Kafka command line to explore the contents of Kafka's /bin directory, use the command line tool to produce and consume messages.
- Implement Kafka Producer and Consumer clients using the Java API and send messages both synchronously and asynchronously.
- Establish use cases for exploring (utilizing) the components Kafka Connect to further understand pre-built connectors, and understanding the methodology behind using Kafka and Spark Streaming.

## AWARDS AND HONORS

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- Dean's List - Saint Louis University

**2018**

## CERTIFICATIONS

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- Google Cloud Fundamentals
- Data Analytics with Python
- IBM - Network Security & Database Vulnerabilities
- Tableau Consumer