# Emanuel A. Calderon

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## SUMMARY

Motivated/Managerial professional experienced in Software Eng., Data Analytics, Data Eng., Statistical Process Control, and Project Management with desire to provide metric driven solutions, automation, and continuous improvement initiatives.

## SPECIALIZED SKILLS

PySpark, Python, Terraform, SQL, Jenkins, AWS Cloud, Snowflake, Docker, StreamLit, DBT, Linux, Shell, Java, R, HTML, CSS, JavaScript, Neo4j, Poetry, Hadoop, Data Structures, Algorithms, JMP, VS Code, NX, Ansys, SAP, Green Belt, Spanish

## EXPERIENCE

**TRAVELERS INSURANCE**, Hartford, CT                                  January 2022 – Present

### Management, Corporate Functions Cloud/Data Engineer II                April 2024 – Present

- Bring ETL, Machine Learning (ML) and Gen AI pipeline infrastructure to Corporate Functions business partners (Corporate Services, Cyber, Audit, Risk, Legal and Finance) paving path for CI/CD and continuous data product delivery.
- Manage 6+ engineers, overseeing cloud infrastructure, data pipeline optimization, and CI/CD automation for DE solutions.
- Review, advise, and approve the architecture, logic, and implementation of diverse technology stacks ensuring best practices.
- Spearhead new technology adoption to optimize pipelines, improving performance and reducing costs for the analytics team.
- Orchestrated internal Kubernetes run Streamlit web app, allowing users to find policies needed from onprem DB through UI.
- Managed development of Streamlit web app, allowing users to prompt gen AI questions on uploaded legal documents.

### Management, People Analytics Cloud/Data Engineer                June 2023 – April 2024

- Awarded leadership responsibility to manage direct reports of Software/Data Eng. discipline for infrastructure creation.
- Managed 2+ team on infrastructure creation, tech stack applications, code quality/security, and leadership development.
- Orchestrated pipeline and python/spark logic to associate word vectors comparing skills of entities, reducing compare times.

### People Analytics Cloud/Data Engineer                       January 2022 – June 2023

- Grew and transformed the past analytics landscape to cloud-based data management system, utilizing interconnected tools (AWS Suite, Jenkins, Spark, Terraform, Snowflake, Python, etc.) providing methods for CI/CD and analysis for utilization.
- Developed and optimized ETL pipelines for AI/ML models, leveraging cloud-based data lakes and data warehouses.
- Orchestrated and optimized pipelines increasing code quality and also reducing runtime, security risks, redundancy and costs.
- Orchestrated logging and alerting of sensitive pipeline/workload to appropriate parties for both auditing and health purposes.
  Key Accomplishments:
  AWS Cloud Practitioner Certified and built machine learning pipes from on-premise/3rd Party to Snowflake with AWS Cloud.

**RAYTHEON TECHNOLOGIES – PRATT & WHITNEY**, East Hartford, CT          May 2016 – December 2022

### Project Lead / Data Analyst                             December 2020 – December 2022

- Created role to both promote organizational success across multifunctional teams and create data pipelines/projects.
- Led Green Belt project for F100 component, eliminating $6,319/part of accrued scrap dollars via Statistical Process Control.
- Utilized incoming data using Minitab/Python/Pandas to optimize internal systems and suggest new data pipelines.
- Led Statistical Process Control 'Accept As Is' Reduction Campaign to eliminate ~$1M/yr of accruals.

### Engineering to Manufacturing (E2M) Engineer & Lead            April 2019 – December 2020

- Managed a program of 7 participants to provide data driven solutions for business units and provide website development.
- Governed Manufacturing Corrective Action Board reviews gathering cross-functional data to suggest metric driven projects.
- Earned Green Belt as Statistical Process Control project lead, to cut ~$100k/yr of rework costs by metric driven solutions.
  Key Accomplishments:
  Eagle award ($1K) & Green Belt for six sigma data-driven project, remain advisory board member to program.

### Design / Structures / Project Engineer                       May 2016 – April 2019

- Drove team of cross-functional disciplines through technical related support, design/structural gate review, deployment of military/commercial fan/external/gear parts and root cause investigations to analyze (GOM/Ansys) integrity of components.
- Maintained Python/GOM script communication and optimized script function to reduce troubleshoot variation by 10%.
  Key Accomplishments:
  2x Eagle Award ($1K) for exemplary leadership, initiative in root cause, and design/process results. Became PL3 status.

## EDUCATION

**Johns Hopkins University, Baltimore MD**
- Masters in Computer Science, Cloud Computing | GPA: 3.50/4.0

**University of Connecticut, Hartford CT**
- MBA in Business Analytics | GPA: 3.60/4.0

**University of Florida, Gainesville FL**
- Bachelors, Mechanical Engineering | GPA: 3.16/4.0

## RELEVANT PROJECTS

**JOHNS HOPKINS UNIVERSITY**, Computer Science Department, Baltimore, MD　　　　January 2021 – May 2022
　**Programmer - Data Engineer / Developer**
- Developed back-end practical game applications using data structures methodology, including Pacman & Spider Solitaire.
- Created, verified, and optimized song database program using Java/Java FX GUI to satisfy both backend/frontend params.

**DATA SCIENCE INFINITY,** Data Science with Python, Remote　　　　January 2023 – April 2023
　**Programmer - Data Engineer / Data Science**
- Create and deploy models including deep learning, supervised and unsupervised ML.
- Awarded certificate of achievement and deployed Supervised ML model onto Streamlit App for public to see [LINK HERE](#).

**DATACAMP,** Data Engineer with Python, Remote　　　　June 2021 – December 2021
　**Programmer - Data Engineer / Data Science**
- Proactive Extract, Transform & Loading data to databases including SQL/Cloud AWS through Airflow/Spark workflows.
- Automating job runs with Shell/Bash Shell scripting using Apache Airflow and Cron.

**UCONN**, Business Analytics Department, Storrs, CT　　　　August 2019 –June 2020
　**Analytics - SQL / R / Hadoop / Big Data Modeling**
- Expanded knowledge base and analyzed various big data sources using Apache Hadoop with Google Cloud and AWS.
- Examined statistical models using R on various data pipelines to suggest organization improvements for communities.
- Led team to improve business internal systems, optimized using SQL logic to reduce tedious process time by 40%.
- Utilized JMP to investigate San Diego crime data patterns to predict and offer areas of improvement to SDPD.

## ADDITIONAL EXPERIENCE

**TRAVELERS INSURANCE**, Hartford, CT　　　　January 2024 – Present
　**Corp. Functions Security Champion**
- Lead business group through orchestration threat models, identifying logic subject to high OWASP vulnerabilities.
- Address diverse technology stack vulnerabilities using SNYK and share remedy logic for productionalization of projects.
- Review and advise on 3rd party OWASP training material, to pave a new path to increase constant security vigilance.
- Lead meetings to identify threats that have been mitigated from other circles, to continue to promote security awareness.

**RAYTHEON TECHNOLOGIES – PRATT & WHITNEY**, East Hartford, CT　　　　June 2016 – December 2021
　**Hispanic Leadership Forum Continuous Improvement Lead**
- Led & improved communications platform through OneNote to streamline event notices and obtain live updates.
- Co-managed 15 team members to improve common practices and bring LatinX culture to business and community.
　Key Accomplishments:
　Became Latina Styles #1 US Hispanic ERG in the nation for continual efforts from 2018-2019. Through Puerto Rico Hurricane Relief efforts in 2018, awarded PW Leadership Through Disaster Award.

**BREWSTER CONDOMINIUM ASSOCIATION**, Glastonbury, CT　　　　August 2018 – Present
　**Brewster Treasurer – Continuous Improvement Project**
- Represent 60-unit owners and lead with team of five to increase property value, reduce work input to output ratio and provide progressive decisions for functions of association.
- Created extract tool via python/pandas for metric driven decisions via visualizations of monthly unit metric reports.
　Key Accomplishments:
　Increased profit margins of 2bed 1bath unit owners by ~$30k, increased participation of owners and all units occupied.