Alex Lee

Senior BI Engineer

Hummelstown, PA | LinkedIn | in

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COMPUTER SKILLS

Programming Languages:
R (*Tidyverse, Shiny, Quarto*)
Python (*SkLearn, Pyspark, PyTorch*)
Java

Databases:
MySQL, SQL Server

Other Tools:
SQL, CSS, Tableau, Alteryx,
Git, Databricks, MS Azure

DOMAIN SKILLS

ETL (Extract, Transform, Load)
Dashboard Development
Machine Learning
Experimental Design
Causal Analysis
People Analytics
Healthcare Analytics

PROJECTS

Text to SQL Transformer
Model in Pytorch | May 2023

Using ML to Identify Risk Factors
and Predict Fatal Outcomes in
Protests | November 2022

Exploring US Data Job
Opportunities | December 2022

CERTIFICATES

Introduction to Programming with
Python and Java Specialization |
March 2023

Data Science: Foundations using R
Specialization | June 2021

EDUCATION

B.S. Business Administration
University of North Texas
Denton, TX
August 2015

LANGUAGE

English – Native Level
Korean – Native Level

WORK EXPERIENCE

Senior Business Intelligence Engineer
Humana

Jun. 2023 – Present
Remote, US

- **Developed** and **deployed** an **LGBM model** with **Python Sklearn** and **Pyspark,** achieving an F1 score of 0.7. Predicted balance and falling issues among customers, ultimately enabling preemptive patient care.
- Built **financial valuations** with **Python** to support the decision-making process in Stars and Risk Adjustment, using **data mining, causal analysis, intervention analysis, simulation, and modeling** methods.

Lead Business Intelligence Analyst
The Hershey Company

Dec. 2022 – Jun. 2023
Hershey, PA

- Upgraded a **Random Forest model** with **Python SkLearn**, achieving an AUC score of 0.88, predicting employee turnover to provide proactive insights for retention interventions.
- Developed a **real-time REST API** in **R**, integrating advanced statistical methods like **survival analysis** and **factor analysis** to provide non-technical stakeholders with access to standardized talent acquisition KPIs and models.
- Led the implementation of an **ETL pipeline** in **SQL Server** to deploy a complex talent acquisition data model, enabling advanced analytics and automation capabilities.

Senior Analyst, HR Reporting
The Hershey Company

Mar. 2022 – Dec. 2022
Hershey, PA

- Conducted Adverse Impact Analysis using **R**, applying statistical hypothesis testing such as **Chi-square, t-test**, and **ANOVA** to reveal complex relationships within diversity groups and provide strategic guidance.
- Performed **financial valuation** of the tuition reimbursement program in **R**, demonstrating its positive impact on employee performance, retention, and management perception. This analysis informed the allocation of over **$6M** towards the program.

Analyst, HR Reporting
The Hershey Company

Nov. 2018 – Mar. 2022
Hershey, PA

- **Developed and automated 7+ end-to-end dashboards and apps** using **R Shiny, Tableau, and SQL**, enabling continuous monitoring of People Analytics KPIs, leading to direct cost reduction of over **$100K**.
- **Automated** periodic internal and external reports and surveys using **R Markdown**, reducing the overhead hours spend by **90%.** Contributed to earning a Great Place to Work recognition and 3rd place in DiversityInc Top 50.
- Facilitated **data modeling in SQL Server** to prepare production-ready people datasets, resulting in a monthly reduction of **over 40 hours in data preparation time** for users.
- **Designed** and **implemented** a comprehensive **R Shiny dashboard** for the living wage initiative, addressing pay equity and sustainability concerns. This led to data-driven decisions and the closure of **100%** of existing pay gaps.