

# ALEX HOLME

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**Address:**

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## TECHNOLOGY SKILLS AND CERTIFICATES

- ♦ Data Science: Python (Pandas, Numpy, SciPy, Matplotlib, Seaborn), SQL (MySQL, Postgres), SciKitLearn, PyTorch, Tableau, Metabase
- ♦ Data Engineering: GCS, BigQuery, DBT, Apache Airflow, Soda, Siemens COMOS, Astro CLI
- ♦ General Technology: Siemens (PCS 7, SCL, Batch, RC), Git, Docker, Excel
- ♦ Certificates: University of Michigan (Applied Data Science with Python including Visualization, Machine Learning, and NLP), IBM (Databases and SQL for Data Science with Python)

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## WORK EXPERIENCE

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**Pharmaceutical Automation Engineer** | Siemens USA

2022 – Present

- ♦ Helped pioneer top-down recipe driven manufacturing processes to improve global operational and regulatory efficiency for pharmaceutical companies with annual revenue in excess of \$10 billion
- ♦ Lead data migrations of over 1+ million objects, built databases using Siemens COMOS and MySQL, developed migration pipelines using Python Pandas and iDBA
- ♦ Programmed Sequential Functions and Batch Recipes to automate manufacturing requests from SAP
- ♦ Automated testing procedures using Python Pandas to reduce FDA validation processes by over 50%
- ♦ Lead daily meetings on \$10+ million projects to ensure design and execution excellence
- ♦ Helped clients develop System and Design Specifications. Wrote test plans for Site Acceptance Testing

**Junior Solutions Engineer:** | Siemens USA

2021 – 2022

- ♦ Designed digitalization plant upgrades leveraging “Industry 4.0” manufacturing technology
- ♦ Performed on site computer system validations of control system network of 40+ computers and 6,000+ I/O, system utilized a client server architecture built in a Citrix Cloud Environment
- ♦ Developed Bulk engineering techniques on the fly to rapidly address systemic plant issues
- ♦ Programmed operator HMI, continuously collected feedback from users to improve system
- ♦ Interfaced with clients daily to understand their technological and design needs

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## EDUCATION

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**Lafayette College** | Easton, PA

2020

*Bachelor of Science, Mechanical Engineering, Economics Minor (Finance Certificate)*

**GPA: 3.52**

Courses Included: Data Acquisition and Analysis, Differential Equations, Systems Engineering

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## Projects

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**Video Engagement Prediction Model**

- ♦ Built automatic machine learning training and evaluation program using Python and SciKitLearn
- ♦ Tunes optimal algorithm for predicting engagement with academic videos based on user behavior
- ♦ Provides users with insights on how to best optimize their videos for increased engagement

**Automated ETL Pipeline**

- ♦ Built end to end data pipeline automated using Apache Airflow
- ♦ Transforms companies’ raw sales data to structured tables using DBT, loads to BigQuery Warehouse
- ♦ Automatically loads to BI Platform, Metabase, and updates KPI Dashboard

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## ACTIVITIES AND HOBBIES

- ♦ Marathons, cycling, rock climbing, skiing, swimming, reading sci-fi
- ♦ Studied abroad for a culturally and linguistically immersive semester in Madrid, Spain