# **Westley Harris**

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## **EDUCATION**

**Texas Christian University** 

Bachelor of Science in Data Science

Fort Worth, TX May 2024

**Courses:** Classical AI, Deep Learning, Data Mining, ML, Predictive Modeling, Techniques in Programming, Linear Algebra, Data Science, Statistics, Probability, Discrete Math II, Data Structure, Database Management Systems, Web Tech, Analysis of Algorithms, Software Engineering

## **ACADEMIC & PERSONAL PROJECTS**

**Data Science,** TCU 08/2021 – 05/2024

- 1. Al-Powered Patent Analysis Platform with Large Language Model
  - 1.1. Analyzes patent and predict specific classification and generates response to correct patent before sending the patent to the USPTO saving user time and money.
- 2. Predictive Maintenance Dashboard
  - 2.1. Used Python Dash to create a dashboard for all predictive maintenance findings. Hosted on Heroku.
- 3. Motor Plate Survey
  - 3.1. Used GPT API and Google Drive API to scan motor plates and put information into user selected excel files in an ordered fashion. General use is for lubrication/predictive assessments. Hosted on Heroku
- 4. RUL Estimation Tool
  - 4.1. Remaining Useful Life Estimation tool using Random Forest Regression Model. Used for determining the number of rotations left that a motor has until failure. Hosted on Heroku.

## PROFESSIONAL EXPERIENCE

## **Industry Maintenance Engineering**

Predictive Data Analyst/ Specialist, full-time

Fort Worth 11/2020 – 07/2024

- Data Analysis & Machine Health Monitoring: Routinely collected and analyzed data from machine sensors to assess health and operational status. Utilized statistical tools to interpret complex datasets, enhancing predictive accuracy.
- Reporting & Visualization: Created detailed reports and visualizations using Microsoft Excel to communicate findings to stakeholders, contributing to strategic planning and preventive maintenance schedules.
- Predictive Maintenance Strategy: Designed and implemented predictive maintenance strategies that optimized machine performance and extended equipment lifespan.
- Continuous Improvement: Conducted regular reviews of maintenance processes and predictive models, identifying areas for improvement and implementing enhancements to increase efficiency and reliability.
- Technical Documentation: Developed comprehensive documentation for predictive models, data analysis procedures, and maintenance strategies to support knowledge sharing and training within the organization.
- Provided Insights on asset health and used predictive technologies (ultrasound, vibration, thermography, etc.) to predict failures in machines for industrial manufacturing facilities.

#### ADDITIONAL INFORMATION

*Technical Skills:* SQL, Python, Excel, Tableau, R, Java, Pytorch, TensorFlow, Hadoop, Spark, MongoDB, CSS, Javascript, HTML, Typescript, Linux

Certifications: Google: Data Analytics, SDT: Level One Ultrasound, Infraspect: Level One Thermography, Tableau: Coursera, SQL for Marketing, MLT, Machinery Lubrication