Austin Ulfers

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Experience

PACCAR Inc. | Data Engineer Intern

Sept. 2020 - Present

- Automated a reporting tool using utilized by senior DBAs when on-prem Oracle databases were at critical capacity using AWS Lambda & EC2. Saving about an hour of work for the team per month and marginally increasing database uptime.
- Implemented regression-based time series analysis to classify hundreds of Snowflake data warehouses as over/under utilized and rescale accordingly in order to save thousands of dollars per hour of compute operation.

Boeing Advanced Research Center | Machine Learning Engineer

Jan. 2020 - Sept. 2020

- Built a quality assurance tool for engineers to predict failure rates of titanium parts using CT scans and microstructure imagery. Tool is expected to save Boeing hundreds of thousands of dollars per year in part failure reductions.
- Worked with material science PhD students to implement modern research papers from academia. Conveyed methods
 and findings to both technical and non-technical senior leadership.

American Classic Homes | Data Scientist Intern

Jun. 2019 - Sept. 2020

- Partnered with the land acquisitions team to develop web-scraping applications to aggregate housing sale and permit data within King County. Further data analysis identified a new growth area with over 300% growth in 2020.
- Predicted supply of new single-family homes with a 30-day margin to estimate neighborhood market saturation for up to 18 months in the future. Insights generated added hundreds of thousands of dollars in value to the company.
- Convinced management to migrate applications described above onto Azure Cloud. Created databases to automatically
 update and track scraped data for \$60 per month. Process written and published on <u>Medium</u>.

Reomnify | Big Data Intern

Apr. 2020 - Aug. 2020

- Built a tool to measure the quantity of natural resources within satellite imagery for any lat/long around the world.
- Implemented DBSCAN clustering to track the popularity and growth of POIs over time using consumer cell-phone foot traffic data that contained millions of observations. Application later migrated to Google Cloud's dataproc and big query.

Projects

A First Look at Sports Analytics for the Sport of Spikeball/Roundnet

Mar. 2020 - Link

- Setup a pipeline to track a Spikeball from an overhead drone view.
- Tracked sports metrics like speed of ball, ball position, net position, speed of serve, number of hits, and more.

Job Application Tracker Web App

Nov. 2019

 Created an AWS RDS database with SQL Server to track my job applications and statuses. I then connected it using NodeJS and built a REST API to query data from the backend. Using React, I built a client-side application to insert and alter data within the database.

Education

University of Washington

June 2021

Bachelor of Science in Informatics: Data Science

Seattle, WA

Summary of Skills

- Programming Languages: Python, SQL, PowerShell, Java, Javascript
- Tools: AWS (EC2, Lambda, S3, Secret Manager, API Gateway, SNS, RDS), Azure (SQL Database, Virtual Machines, Runbook, Logic App), Docker, Teradata, Snowflake, Tableau, TensorFlow, SciKit Learn, Keras, OpenCV
- Abilities: Data Analysis, Machine Learning, Visualizations, Database, ETL, Automation, Web Scraping, Cloud Migration