Everett Dutton

linkedin.com/in/everett-dutton
everettdutton.com

Work Experience:

Operations Research Analyst, Marathon Petroleum, June 2020 – Present, with 6 month sabbatical
- Led QA testing, SQL data ingestion, and Tableau visualization of discrete event simulation and mixed integer optimization models to reduce marine shipping costs and pollution.
    - Operational savings are over **$10 million per year**, via optimized routing and scheduling.
- Co-developed probabilistic approach to determine proper marine fleet sizing with a simple Excel tool.
    - Combined with the above, this tool gave backing to leadership to cut fleet size from 30% oversized to 3% undersized (**$50+ million one-time savings**).
- Led creation, cloud deployment, and dashboard development of a new forecasting model. This model is a general time series analysis framework which has also been applied to estimating pricing, market capture, and holiday effects on sales.
    - This model is utilized to estimate finished product demand across more than **50 locations and 10 classes** of trade, and is on average **4% more accurate** than the old model.
- Co-developed geospatial gas station scouting system with open-source and internal data to predict sales volumes and station quality remotely, using supervised and unsupervised machine learning methods.
    - In one case, this model was used to **remotely examine 20 sites** for potential rebranding in an afternoon - this would have easily taken more than a week if done manually.
- Discovered error in consultant's credit card interchange fee methodology. Successfully presented technical findings (regression and hypothesis testing) to non-technical internal and external stakeholders, resulting in a point-forward amendment to the contract.
    - Resulted in a **$1.1 million savings** for the remainder of the contract.

Owner, Dutton Solutions LLC, June 2023 – Present
- Develop web applications with Python-based backends such as optimalnightvision.com, the mathematical inventory optimization platform for night vision manufacturers.
    - Capable of matching thousands of intensifier tubes together, and with customers, in seconds. Manual processing can take hours or days, and is not guaranteed to be optimal.

Enterprise Standards Engineer Intern, John Deere, May 2019 – August 2019
- Led enterprise-wide working groups in the creation and revision of 4 critical engineering standards, affecting hydraulics on all heavy equipment worldwide (over **500,000 units annually**).

Assembly Line Engineer Intern, Honda of America Manufacturing, May 2018 – July 2018
- **Reduced cycle times by up to 5%** on certain processes by programming PLCs to collect data, fixing collection issues, cleaning and analyzing data, simulating changes, and implementing fixes.

Education and Certifications:

M.S. Industrial and Systems Engineering, The Ohio State University
- Operations Research Focus, Magna Cum Laude

B.S. Industrial and Systems Engineering, The Ohio State University
- Manufacturing Focus, Cum Laude

Certified Analytics Professional (CAP), INFORMS
- Highly proficient in business problem framing, analytics problem framing, data gathering, methodology selection, model building, deployment, and lifecycle management.

Azure Data Scientist Associate, Microsoft
- Train, evaluate, and deploy machine learning models in the cloud.