Everett Dutton

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Work Experience:

Senior Data Analyst, Ohio Children's Alliance, September 2024 – Present
- Develop data strategy to positively impact foster youth in the State of Ohio.
- Implement data strategy through the creation of data ETL processes, dashboards, and modeling.

Operations Research Analyst, Marathon Petroleum, June 2020 – September 2024, 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
- Offering decision science consulting services at duttonsolutions.com. Automate planning tasks, guarantee decision optimality, reduce costs, and increase revenue using technologies such as machine learning, optimization, simulation, and data visualization.
- Develop web applications with Python-based backends such as optimalnightvision.com, the mathematical inventory optimization platform for night vision manufacturers.

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.