

# MAXWELL SHEPHERD

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## EDUCATION

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### Johns Hopkins University

*M.S. Data Science*

August 2024 - May 2026

GPA: 4.00

- Specialization in Machine Learning & Artificial Intelligence
- Applied Generative AI, Computational Statistics, Big Data Engineering, Distributed Computing, Human-Computer Interaction

### Purdue University

*B.S. Industrial Engineering*

August 2016 - May 2020

GPA: 3.53

- Dean's List & Semester Honors
- Operations Research, Optimization, Stochastic Modeling, Manufacturing Processes

## EXPERIENCE

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### Boeing

August 2023 - Present

*Industrial Engineer III / Engineering Data Scientist*

- Led a cross-functional engineering team developing end-to-end machine learning solutions using Python, SQL, React, and Tableau, enabling advanced analytics and strategic decision-making for aircraft asset management.
- Architected and deployed enterprise-scale statistical analysis and visualization tools, facilitating rapid interpretation of multi-terabyte datasets through a full-stack approach (Python, SQL, React, Tableau).
- Served as organizational subject matter expert for statistical experimental design, data modeling, AI integration (including LLMs/GenAI and traditional ML techniques), and UX/UI development leveraging Tableau and React.
- Consulted directly with customer organizations to implement data-driven strategies and streamline operations by identifying and eliminating redundant processes.
- Optimized data workflows and ETL pipelines, significantly reducing latency, improving reliability, and enhancing scalability, increasing user trust and adoption of analytics products.
- Author of data synthesis and retrieval suite used by more than 1,000 employees 21,000 times per month, credited with a yearly cost savings of \$2.2M.

*Boeing Designated Expert – Analytics*

June 2025 - Present

- Recognized as enterprise-wide authority on business statistics, machine learning/GenAI, and analytics.
- Responsible for setting organization technical direction for future technologies and airplane programs.

*Industrial Engineer (Intern, I, II)*

May 2019 - August 2023

- Supported process optimization and data automation initiatives for 747, 767, 777X, and 787 airplane programs.
- Designed production-quality Tableau dashboards and ETL scripts to enable a new generation of enterprise analytics.

### Disney

May 2018 - August 2018

*Industrial Engineering Intern*

- Supported planning and operations at Walt Disney World via statistical analysis, simulation, and insight validation.

### PTC Inc.

May 2016 - August 2016

*Product Development Intern – Additive Manufacturing*

- Research and development contributor; additive manufacturing feature optimizations for CAD software.

## TECHNICAL SKILLS

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**Languages/Frameworks:** Python (Flask, FastAPI, PyTorch, XGBoost), SQL, R, MATLAB, Minitab

**Visualization:** Tableau, Grafana

**Ops:** Docker, Airflow, Linux, InfluxDB, Git

**Libraries:** React (HTML/CSS/JS, Material-UI), OpenAI APIs

**Other:** SolidWorks, CRDT (Conflict-free Replicated Data Types)