

Joshua Hyatt

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PROFILE

Pragmatic and results-oriented Data Scientist with over 10 years of experience delivering production-grade machine learning solutions across the automotive, finance, and education sectors. Passionate about solving real-world problems using statistical modeling, computer vision, and NLP. Proven ability to lead cross-functional projects, to design and implement robust MLOps pipelines using Databricks, Docker, and CI/CD best practices. Adept at working in collaborative environments and translating complex data into strategic business outcomes.

PROFESSIONAL EXPERIENCE

Data Scientist III

July 2018 – Present

Denso International America, INC. - Maryville, TN

- Collaborated with MIT to simulate and analyze supply chain resilience using Gurobi and GIS datasets, informing risk mitigation plans for natural disasters.
- Developed a computer vision defect detection system using segmentation-based CNNs and convolutional autoencoders, deployed via Flask, containerized, and integrated for robotic process control using OPCUA, reducing defect rates and human inspection costs.
- Led deployment of Databricks-based pipelines for time series analysis and predictive maintenance, leveraging Data Quality Pipelines, MLflow for experiment tracking, and Unity Catalog for data and model asset management.
- Built NLP models using sentence embeddings and UMAP for clustering procurement descriptions, improving spend visibility and optimizing purchasing processes.
- Led the Data Science Internship Program, handling hiring, project scoping, daily standups, and mentorship; delivered production-quality NLP and analytics solutions while establishing training resources and workflows for future prospects.
- Accurately forecasted the COVID-19 case peak using an SEIR model 16 months in advance (8-day margin of error), enabling proactive workforce planning and minimizing disruption to manufacturing operations.
- Established an Enterprise CI/CD pipeline using Azure Devops with Databricks, as well as GitLab with Docker to automate testing and deployment of ML applications with API endpoints.

Business Analyst II ← DBA ← Fraud Analyst

Nov 2015 – July 2018

Elavon. - Knoxville, TN

- Improved fraud detection accuracy and work queue triage, resulting in an additional \$200K in annual fraud prevention.
- Built a web scraping tool that halved account investigation time, with estimated annual savings between \$25K–\$50K.
- Founded and led the Dedicated Solutions Team to automate reporting and data quality monitoring for internal business units.
- Recognised with the Pinnacle Award (top 10% company-wide performance) in 2016.

Adjunct Mathematics Professor**Aug 2013 – Nov 2015**

Pellissippi State Community College - Knoxville, TN

- Taught Statistics, Algebra, and Business Calculus, supporting diverse learners and maintaining strong student outcomes.

EDUCATION

Masters of Science in Mathematics,
University of Tennessee- Knoxville, TN
GPA: 3.97/4.0

July 2013

Bachelor of Science in Mathematics
Murray State University- Murray, KY
GPA: 3.81/4.0

May 2011**SKILLS****Machine Learning & AI**

- Supervised & Unsupervised Learning, Time Series Forecasting
- Anomaly Detection (Autoencoders, One-Class SVM, LOF, PCA)
- NLP (Sentence & Word Embeddings, NER, Sentiment Analysis)
- Computer Vision (CNNs, U-Net, Image Embeddings)
- Optimization & Simulation (Gurobi, SEIR Modeling)

Programming & Frameworks

- Languages: Python (NumPy, Pandas, SciPy, matplotlib, NLTK, SQLAlchemy, Scikit-learn, TensorFlow, Beautiful Soup, UMAP, XGBoost), SQL, Bash, Spark
- MLOps & DevOps: Git, CI/CD, Docker, MLflow, Pytest, Selenium

Data & BI Tools

- SQL (PostgreSQL, MSSQL, Cassandra)
- DOMO, Tableau, Jupyter Notebooks, Quarto
- Data Modeling, Feature Engineering, Data Wrangling

Platforms & Infrastructure

- Databricks: Jobs, Pipelines, Workspace Administration, Repos, Unity Catalog, Vector Stores
- GitLab (Runner & Pipelines)
- Azure Cloud, Docker (Containerization & Deployment)
- Azure Devops, GitLab Devops, Git Pages
- Linux (Command Line, Scripting), REST API Deployment and Web Hosting

Collaboration & Leadership

- Agile & Scrum Environments
- Technical Mentorship & Training Programs (Self Led and Instructor Led)
- Cross-Functional Communication (Business, Engineering, Executives)
- Documentation & Reproducibility Practices

NOTES

- Eligible to work in the EU with sponsorship
- Willing to relocate or work remotely with some travel
- Familiar with GDPR-aligned practices and data governance
- Comfortable working in multicultural and international teams