

# Jonathan T. Oxborrow

Economics, S&OP and Pricing Analytics Professional

Washington, IL 61571 | USA | +1-309-822-2113



## Experience

### **Analytics Manager/Team Lead**

Global Parts Pricing

Caterpillar Inc., 11/2020-Present

- Team Leadership in Advanced Analytics, Data Engineering and Business Intelligence
- Designed Parts Pricing Analytics Pricing Automation Evolution Roadmap
- Interim data steward delegate ensuring compliance and risk management
- Reviewer/approver of TAP data access to ensure compliance and security
- Strategic leader in AWS, Snowflake, R, Python, Alteryx and PowerBI
- Leads pricing automation, machine learning and reproducible reporting efforts
- Leads team of 8 data scientists and data engineers
- Manages analytics role in Major Price Plan ensuring seamless execution

### **S&OP Coordinator - Analytics**

Energy & Transportation

Caterpillar Inc., 10/2015-10/2020

- Led data implementation for cloud based forecasting system with external vendor
- Implemented analytics server for increased automation and analytics
- Championed data governance and validation process establishment
- Built consensus across industry groups for key analytics initiatives
- Prepared centralized E&T scoped statistical forecast, improving forecast accuracy
- Established data engineering, advanced analytic, and business intelligence efforts
- Implemented pricing anomaly detection program for the forecasting system
- Led implementation of centralized Tableau reporting/engineered standard metrics

### **Machine Demand Forecaster**

Business Economics

Caterpillar Inc., 4/2012-9/2015

- Developed demand forecast and annual Long Term Forecast for L&H product
- Forecasted over \$3 billion in annual revenue
- Collaborated with forecast stakeholders to arrive at forecast consensus
- Prepared forecast analysis for upper management in Executive S&OP meetings
- Presented monthly to product managers on forecast changes and performance
- Mined economic databases for leading indicators for machine learning model
- Developed Excel/VBA based forecasting system for use across the division

### **Regional/Sr. Economic Analyst**

Business Economics

Caterpillar Inc., 11/2006-3/2012

- Prepared North American economic forecast (GDP, inflation, interest rates, IP, etc.)
- Enhanced the U.S. GDP forecast using chaining to ensure hierarchical consistency
- Prepared North American machine industry sales forecast
- Authored Canada economic summary for Caterpillar Board of Directors meetings
- Managed and communicated North America PINS/market share assumptions
- Prepared worldwide long term exchange rate forecasts
- Supported business cycle monitoring processes and various enterprise initiatives

### **Economic/Quantitative Analyst**

Business Economics

Caterpillar Inc., 6/2005-10/2006

- Maintained monthly processes for Asia Pacific and Latin America
- Translated relevant Spanish language economic articles
- Prepared models and reports for Business Plan and Long Term forecast
- On-boarded new analysts and interns

## Education

### **M.A., Applied Economics**

Illinois State University, 5/2005

Earned an M.A. in Applied Economics. Coursework included advanced linear algebra, real analysis, stochastic processes, econometrics, statistics, and labor/human resource economics. Required demonstration of the command of a foreign language.

### **B.A., Economics**

Brigham Young University, 12/2002

Earned a B.A. in Economics. Coursework included Spanish, computer programming, calculus, differential equations, linear algebra, price theory, financial, trade, urban, and health economics.

## Certifications

### **Machine Learning & A.I.**

UC Berkeley, Expected 3/2025

Certification in tools and knowledge in Machine Learning and Artificial intelligence including: statistics, analysis, clustering, dimension reduction, regression, feature engineering, model selection and regularization, classification, logistic regression, decision trees, gradient descent and optimization, kernel methods, natural language processing, recommendation systems, ensemble techniques, and neural networks.

### **Data Strategy**

UC Berkeley, 4/2024

Comprehensive training in Data Strategy. Learnings included Data Management, Data Governance, Quality and Security, Data Processes and Technology, Data Organization and Culture, Data at the Leading Edge.

<b>AWS Certified Cloud Practitioner</b> AWS, 8/2023-8/2026	Foundational high level understanding of AWS cloud services and terminology. Essential understanding of AWS compute, network, database, security and storage services. Services covered: EC2, Elastic Load Balancing, SQS, SNS, AWS Global Infrastructure, CloudFront, VPNs, deployment models, EBS, EFS, RDS, IAM, Cloudwatch, Cloudtrail, Organizations, Cost Explorer, etc.
<b>Professional Forecaster</b> Institute for Business Forecasting	Certifies knowledge and skills in forecasting mechanics and process. Validates knowledge in S&OP/IBP, statistical forecast modeling and measurement, as well as the forecasting soft skills of getting buy-in from stakeholders.
<b>Economic Measurement</b> NABE	National Association for Business Economics certification in Economic Measurement requires a comprehensive knowledge of measures of U.S. economic performance and key analytic techniques to evaluate economic data.

## Leadership Qualities & Training

<b>Qualities</b>	<ul style="list-style-type: none"><li>• Communication &amp; Emotional Intelligence</li><li>• Ownership - Drives projects to completion</li><li>• Values &amp; Integrity</li></ul>	<ul style="list-style-type: none"><li>• Enterprise Behavior &amp; Teamwork</li><li>• Goal/Result Oriented</li><li>• Intellectually Curious &amp; Continuous Learner</li></ul>
<b>Training</b>	<ul style="list-style-type: none"><li>• LD200 - Frontline Leadership</li></ul>	<ul style="list-style-type: none"><li>• Leadership Paradox</li><li>• BetterUp Leadership Coaching</li></ul>

## Analytic & Technical Skills

<b>Analytics &amp; Programming</b>	<p>Proficient:</p> <div>PythonPySparkSQL/SnowflakeRQuartoAWS/EMRExcel/VBA</div> <div>Power AutomateTableauDevOpsGit/Github/CodespacesMermaid</div> <div>Graphviz/Dot</div> <p>Experienced:</p> <div>PowerBIAlteryxCognosSAP BobjSASSTATAEviewsbashTypst</div> <p>Functional:</p> <div>JuliaC/C# , JavascriptDocker</div>
<b>Statistics, ML, and AI</b>	<p>Proficient:</p> <div>Time Series &amp; ForecastingSeasonal AdjustmentRegression/GLMClassification</div> <p>Experienced:</p> <div>KNN/DBSCANLasso/RidgeLogistic RegressionKernel Methods</div> <div>Feature Engineering/SelectionDecision Trees/Random ForestOutlier Detection</div> <div>ImputationNLP/Naive BayesSVDGradient Descent</div> <p>Functional:</p> <div>Graph &amp; Network Analysis</div>

## Languages, Projects, and Activities

<b>Languages</b>	English: Native Spanish: Reads, writes, and speaks with professional proficiency
<b>Projects &amp; Activities</b>	YNABR: An open source API client package for the “You Need a Budget” web application in R XRANDRGUI: An open source GUI for the XRANDR Linux utility implemented in Python BYU-Idaho Instructor: Part time online instructor for Econ 150, Fall 2021-Present
<b>Volunteer Service</b>	Economics Advisory Board, Illinois State University, January 2025-Present