

LAURA VU, DR. ENGR.

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PROFESSIONAL EXPERIENCE

University of North Texas – Denton, TX

August 2024 to Present

Professor – Dept. of Multidisciplinary Innovation

- Director of the Interdisciplinary Studies Graduate Program - leading advancements in curriculum design, program structure, content delivery methods, new student recruiting strategies, and industry partnerships
- Chair of the Department of Multidisciplinary Innovation's Digital Solutions Taskforce – in charge of the department's website content, social media and podcast development and updates, budget and inventory management systems, and department newsletters
- Assistant Clinical Professor delivering content in Data Analytics & Decision Science, Leadership & Project Management, and Organizational Development & Change

Southern Methodist University – Dallas, TX

June 2019 to Present

Adjunct Professor – Dept. of Operations Research and Engineering Management

- Delivering content in Production & Operations Management, Lean/Six Sigma/Kanban, Economic & Forecasting Analysis, Network Modeling, Facility & Inventory Planning, Decision Science, and Project Lifecycle Management (PLM)

Full-Time Doctoral Student (Graduated May 2022)

- Dissertation: *Value-Oriented Business Process Management: Using a Process Reengineering Approach to Identify Productivity Improvement Requirements and Justify Strategic Capital Investment*

Prosperity Now – Washington, DC (remote)

May 2022 to December 2024

Director - Technology Solutions

- **Digital Transformation** – Independent consultant reporting to the COO while leading the nation-wide non-profit's Digital Transformation initiative, specifically focused on CRM, ERP, and Project Management tools.
- **Technology Vision** – Designed the organization's vision for their future business and IT architecture and capabilities and led the strategic alignment of business and technology by fostering communication and consensus with Sales and Service partners.
- **Salesforce CRM** – Implemented Salesforce for multiple divisions, using process re-engineering techniques to migrate processes and reference files from individual Excel spreadsheets to automation and tracking visibility within the CRM.
- **Data Management** – Defined data standards, architecture, and collection requirements, and implemented "Big Data" governance to ensure data mining efficiency, reliability, capacity, and scalability for future use.
- **Metrics & KPI's** – Defined metrics to track both business goals and technology adoption and implemented an Executive Dashboard that uses machine learning algorithms to monitor and forecast the health and capacity of the organization.
- **Agile Development** – Implemented an agile development structure to track open issues, change requests, and development needs for both the initial rollout of Salesforce and ongoing support of other existing technology platforms.
- **CAT Rollout** – Effectively created a Communication, Adoption, and Training program to help 75 new users learn and accept the new CRM technology, focusing on tying technology usage to organizational goals and personal benefits.

BNSF Railway – Fort Worth, TX

January 2004 to May 2019

Strategy & Innovation

Senior Program Manager, Business Process Management (BPM)

- **Business and Technology Liaison** – Reporting to the CMO, led the "Customer Ease of Doing Business" strategic initiative by guiding and acting as a liaison between Business, Customer, and Technology teams in using Voice of the Customer (VoC) analysis to identify customer pain points and design improved customer experience processes and dashboards.
- **Team Leadership** – Directed a team of BPM analysts, prioritizing and analyzing multiple concurrent programs, action plans, timelines, milestones, and budgets, and informing stakeholders and senior leadership of project progress.
- **Next Gen CRM** – Led Sales and IT's efforts, including RFP, vendor selection, capturing user stories, process redesign, and agile development.
- **Big Data** – Achieved the merging of multiple customer and account databases into a standardized "Super Reference Data File" by implementing advanced data integrity algorithms, data merging processes, and data governance.
- **Strategic Alignment** – Aligned multiple customer-facing Next Gen programs and laid the foundation for a BPM Center of Excellence, balancing development agility, data and process governance, and key metric tracking.

Senior Program Manager, Technology Strategy

- **Technology Roadmapping** – Reported directly to the CIO and VP, Network Strategy, to research, socialize, vet, and catalog opportunities and threats presented by emerging disruptive technologies, while creating a system to track and propel progress on these initiatives going forward, and making recommendations on where BNSF should invest directly in POCs and technology development.
- **Cross-Functional Leadership** – Lead direct reports, consultants, and business partners in identifying and pursuing these opportunities.
- **Business Case** – Supported the UAS (Unmanned Aircraft System) program with analysis and coordination of key decision makers and results to build a successful business case for broader adoption of UAS's as part of our maintenance and risk reduction efforts across our system.
- **Operations Proof of Concept** – Led a field study regarding using fiber optics and distributed acoustic sensors to identify railcar wheel faults.

Sales & Marketing

Senior Account Manager, Sales

- **Customer Advocate** – Nurtured and grew accounts exceeding \$140M by cultivating customer relationships through effective communication, collaboration, responsiveness, and consideration of customer dynamics, resulting in increased volume and profit.
- **Communication** – Improved traffic efficiency, cost-effectiveness, and profitability by spearheading communication and collaboration between customers and internal operations leaders, including monitoring service interruptions, aligning support and operations responses, and implementing process and infrastructure improvements at customer facilities.
- **Account Management** – Led the team through the entire sales cycle, from lead development and opportunity management to economic development studies and customer meeting preparation. This included tracking volume and revenue, contact management, creating internal executive summaries, and generating portfolio reports and dashboards.

Manager, Pricing Strategies and Market Research

- **Market Strategy** – Developed commodity pricing strategies worth \$250M by aligning market insights, performance metrics, and cost data to craft pricing that influenced market dynamics and optimized market share, railcar asset use, operational efficiency, and profitability.
- **RFP Management** – Successfully coordinated responses to multi-commodity RFPs, negotiated and retained contract renewals on competitive business, and communicated plans and results to Marketing leadership.

Finance & Capital

Senior Manager, Finance Systems

- **Visualizing Complexities** – Led the re-engineering and automation of the Cost Reconciliation process, focusing on improving the general understanding and visibility of the process for non-technical users, along with the accuracy and efficiency of the Activity Based System (ABS).
- **System Maintenance** – Developed recommendations and implemented complex methodology changes to the ABS logic to help improve the accuracy of cost allocation and reporting and reflect any segmentation or operational changes.

Senior Manager, Strategic Studies

- **Quantitative Analysis** – Advised the CFO by providing objective, NPV-based evaluations of complex capital projects, by leading cross-functional information gathering sessions and analyzing various alternatives, their associated risks, and their comprehensive impacts on costs, profitability, operational performance, and customer service.
- **Business Support** – Automated and streamlined commercial contract renegotiations and capital expense approvals by implementing standardized analytical tools and dashboards, transforming financial and sales processes and insights, influencing over \$1B in the first year.
- **Project Management** – Drove projects to completion while prioritizing multiple demands in a very dynamic high-visibility environment.
- **Presentation Styling** – Catered to multiple leadership and decision-making styles with presentations with both high-level summaries, insights, and visualizations as well as deep-dive analyses, sensitivity evaluations, and detailed notes that could withstand thorough scrutiny.

Senior Manager, Financial Planning and Control

- **Major Program Changes** – Responsible for a \$5B company-wide fuel cost recovery program, leading a cross-functional team to implement critical methodology changes, answer information requests related to litigation, and provide revenue forecasts and variance explanations.
- **Sensitive Communication** – Effectively navigated highly litigious and sensitive topics to guide customer understanding during the transition by creating collateral that simply yet thoroughly explained the complicated dynamics and calculations behind the changes.

Operations

Analyst, Engineering

- **On-Site Project Management** – regularly visited rail build projects across Texas, New Mexico, and Oklahoma to check on progress and provide Engineering presence and leadership during project kick-off and build phases.
- **RFP Management** – main point of contact for Civil Engineering firms answering RFP's related to new rail siding builds. Created RFP's with inputs from Engineering, Transportation, and Service Design. Answered vendor inquiries and collected and analyzed proposals for completeness. Ranked proposals based on requirement weightings and submitted recommendations to Engineering leadership.

Analyst, Capacity and Product Strategy

- **Capacity Planning** – Analyzed and made recommendations on areas of improvement for train operating schedules and costs, and formulated demand growth projections for a Central Corridor/Utah Railway profitability study.

EDUCATION

- Doctor of Engineering, Engineering Management – Southern Methodist University – Dallas, TX
- Master of Science, Engineering Management – Southern Methodist University – Dallas, TX
- Bachelor of Science, Industrial Engineering, Cum Laude Honors – Texas A&M University – College Station, TX

AWARDS AND HONORS

- Nominated for the SMU Digital Accelerator Advisory Council and the Feld Group Institute's Fellowship Program
- Nominated for the Leadership Worth Following, LLC assessment and coaching program
 - Final result: rated "significantly above average" at demonstrating leadership worth following during a 360 review

SKILLS AND CERTIFICATIONS

- Business Process Management (BPM) Certification – Boston College
- Microsoft Office: Outlook, Word, PowerPoint, Excel, Access, SharePoint, Visio, Azure DevOps, Project, Planner, OneNote, OneDrive
- Business Management: CRM/Salesforce/SAP tools, ERP/Oracle/SAP tools, Trello/Jira/Basecamp/Project Management tools, EDI B2B comms
- Data Science and Visualization: Data Warehouse/BI Query, SAS, SQL/GQL, BOBJ, TeraData, R, Python, AnyLogic, ArcGIS, Tableau, Power BI