

UJVAL GANDHI

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- OBJECTIVE** To apply my knowledge and skills in the fields of operations management and data analysis
- EDUCATION** **M.S (Industrial & Systems Engineering)**, December 2003
Virginia Polytechnic Institute and State University, Blacksburg, VA. GPA 3.8/4.0
- B.S (Mechanical Engineering), Minor Statistics**, May 00
Faculty of Technology and Engineering, MS University, India. GPA 3.6/4.0
- EXPERIENCE** **Graduate Research Assistant**, University Leadership Development, Aug 2002 onwards
- Designed and developed a database in Oracle 8i & MS-Access to evaluate employee performance
 - Designed a course in Database Fundamentals responsible for raising employee performance levels by 44% over the previous year
 - Used SAS software for statistical analysis to reduce survey analysis time by 33%
 - Using Minitab 13 to identify and group University employees in groups based on their need for IT training. Working with Element K to develop new software courseware for University employees.
 - Design of a website for online usage of performance data using Access and ASP.
- Coop, General Electric-Aircraft Engines**, Ohio, May 2001 – July 2002
- Worked in the Supply Chain Planning group to coordinate Plan Quality for the Shell-Interface system. Developed and tested plan routines using APS Plan Testing tool.
 - Hands on experience on MAPICS and CAPS Supply Chain Designer
 - Developed a Collaborative Forecasting and Replenishment model to track customer inventory and Point of Sales Data
 - Coordinated with Oracle support team for integration of legacy system with new system
 - Developed Six Sigma initiatives to track, measure and monitor software development process and reduced development defects by 45% in three months
 - Successfully completed Green Belt Training program offered by GE
- Graduate Research Assistant, National Science Foundation**, Aug 2000 – May 2001
- Developed unique solutions for the building construction industry
 - Co-developed a demand requirement planning engine to drive production planning
 - Responsible for reducing WIP inventory levels by 33%
 - Involved as a team member in ISO 9000 certification process
 - Used background in statistics to identify trends and future business opportunities.
 - Involved as a team-member as a part of a team tasked with the creation of an electronic expert system to monitor and track inventory levels and for warehouse management
 - Responsible for creation of staffing plans in MS-Project and Primavera that reduced contractor requirements by 30% and physical resource requirements by 25%.
 - Recommendations were made for improving existing manufacturing process that reduced cycle times by 20% and improved operator efficiency by 30%.
- Analyst, International Red Cross, India**, June 2000 – July 2000
- Developed unique solution for IRC, India to identify and track further opportunities for growth.
 - Designed an online database to track costs on various projects.
 - Involved with a team to identify and document standardized procedures for service delivery.
 - Coordinated efforts in supplier quality and streamlined procedures for vendor selection.
- Coop, Shell-BP, India**, July 99 – May 2000
- Involved in employee training for new SAP software
 - Designed process solutions to reduce rejection rates by 20% on the assembly lines
 - Created an access database to collect data on distribution and warehouse costs
 - Used data-mining and regression analysis to identify optimum logistic networks for the organization
 - Data analysis to make recommendations for bottleneck, throughput, facility layout, resource utilization and capacity analysis

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MASTERS THESIS, Vendor Managed Inventory system with returns

- Developed a supply chain application for a Vendor Managed Inventory system in MS-Access and ASP
- Developed a MRP based system to compare benchmark information
- Developed an algorithm to model revenue sharing agreements and explore the value of information sharing.
- Developed an algorithm to reduce the bullwhip effect and to optimize the point-to-point transportation network
- Incorporated modules in collaborative forecasting and revenue price optimization
- Developed performance measures using the Kaplan-Norton Balanced Scorecard approach
- Integrated a reverse logistics system with assembly line operations (forward logistics)

UNDERGRADUATE THESIS, Reverse Logistics Supply Chains

- Formulated a game theory situation between an OEM and a local remanufacturer using C++
- Developed an algorithm for calculating optimum EOQ in reverse logistics supply chains
- Investigated the theoretical possibility of integrating a reverse logistics system with a forward production system
- Conducted a market research study for understanding the market drivers of reverse logistics

RESEARCH PAPERS

- **Systems Approach to Project Evaluation, INFORMS International Conference, Turkey**
 - Use of System Dynamics to understand a holistic approach to project evaluation
 - Design and Implementation of a System Dynamics Model for a target production system
- **System Dynamics Model of Blacksburg Transit, INFORMS Annual Conference, San Jose**
 - Conceptualization, design and implementation of a system dynamics model for the local bus transit company
 - Recommendations on bus routes frequency and service staffing plans. Improvements resulted in fiscal savings of 18% over two quarters.
 - Statistical analysis using SPSS software to investigate 'What-If' analysis and data-mining to improve service quality levels by 24%.
- **Measurement of Intellectual Capital in Knowledge Based Organizations, IIE Annual Conference, Portland, OR**
 - Designed and implemented a performance measurement for Virtual Corporation, a student run company within Virginia Tech
 - Conducted 3 surveys to identify factors regarding the measurement of intellectual capital and analyzed data using SPSS 11.
 - Recommendations resulted in a 33% rise in student enrollment and improved satisfaction levels within the organization by 29% in six months.

PROJECTS

- Baldrige Certification Process, Alexandria Research Institute
- Roanoke Airport Simulation Project, Roanoke Regional Airport Authority
- DSS Design and Implementation, Norfolk Naval Shipyard
- Financial Ratios Tracker Software, Corporate Finance Coursework Project in Visual Basic
- Markov Chains-A supply chain perspective, C++ source code for a Markov chain simulation
- Design of an Expert system for the ISE Department, Usability Engineering coursework project
- Performance Measurement System Design and Implementation, Sheraton Four Points, Blacksburg, VA
- Performance Measurement System Design and Implementation, US Airways Service Center, Crystal City, VA
- B2C online store design using Cold Fusion, Database Management Systems coursework project

SKILLS

Operating Systems	Windows 95/98/NT/2000/XP, UNIX
Languages	C, C++, VC++, JavaScript, ASP, Visual Basic
Packages	Arena, ProModel, Primavera, Dream weaver, FrontPage, Cold Fusion
SC Software	MAPICS, CAPS Supply Chain Designer, Oracle Shell-APS
Statistical Packages	Minitab, SPSS, SAS