Mansour Manci

Software Engineering Leader | DevEx & Systems Engineering Expert

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PROFESSIONAL SUMMARY

Senior Software Engineering Leader with 7+ years optimizing developer experience (DevEx) and delivering scalable embedded systems solutions. Led cross-functional teams of 6-10 engineers, achieved 30% reduction in overtime and 90% reduction in weekend work. Expertise in Python, C, DevOps automation, and agile methodologies with proven track record driving process improvements and quality initiatives.

Core Competencies: Engineering Leadership • Developer Experience (DevEx) • Embedded Systems • DevOps & CI/CD • Agile/Scrum • Performance Optimization

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TECHNICAL SKILLS

Programming Languages: C, Python, MATLAB, Simulink, R, VBScript
Cloud & DevOps: Azure DevOps, Git, Subversion, Mercurial, Jenkins, CI/CD Pipelines
Tools & Technologies: CANalyzer, TractorSim, DIAdem, Rally
Methodologies: Developer Experience (DevEx), Product Verification & Validation (PV&V), Systems Engineering, Continuous Improvement (CI), Root Cause Analysis, Hardware-in-the-Loop (HIL), Software-in-the-Loop (SIL), Model-in-the-Loop (MIL), Agile/Scrum

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PROFESSIONAL EXPERIENCE

Software Development Enablement Lead | John Deere | *May 2025 – Present*

- **DevEx Leadership**: Partner with software engineers to identify and resolve inefficiencies in tools, processes, and architectures
- **Technology Adoption**: Champion adoption of new technologies and tools to enhance embedded developer experience
- **Data-Driven Analysis**: Conduct and analyze biannual developer surveys to inform strategic improvements to software development lifecycle
- **Process Innovation**: Drive continuous improvement initiatives across engineering teams

Supervisor, Crop Care Software PV&V Engineering | John Deere | *June 2023 – May 2025*

- **Team Leadership**: Led team of 6-10 PV&V engineers in on-time delivery of high-quality software for planting, seeding, and tillage equipment, including key autonomous vehicle projects
- **Operational Excellence**: Achieved 30% reduction in overtime and 90% reduction in weekend work by optimizing resource planning and implementing data-driven burndown charts
- **Quality Improvement**: Reduced software release errors by 25-30% by transitioning from informal handoffs to structured release process with formal audits
- **Capacity Scaling**: Doubled testing capacity during critical delivery cycle by orchestrating cross-departmental, two-shift testing effort to ensure on-time project completion
- **Infrastructure Optimization**: Reduced time spent managing test schedules by 90% by developing and implementing shared scheduling system for Hardware-in-the-Loop (HIL) environments
- **Talent Development**: Cut onboarding time for new engineers by 50% through targeted mentoring and facilitating cross-platform training to improve team flexibility

Embedded Software Engineer | John Deere | *June 2022 – June 2023*

- **Agile Transformation**: Spearheaded team's adoption of Rally Agile management tool, serving as Scrum Master within first month of joining
- **Process Standardization**: Improved team productivity and documentation quality by designing standardized user story templates with minimum acceptance criteria and leading all Agile ceremonies (Backlog Grooming, Sprint Planning, Retrospectives)
- **Security Systems**: Designed comprehensive system test plan for vehicle Immobilizer feature, ensuring robust security against unauthorized operation by validating interactions between RFID transponders and vehicle control units
- **Team Leadership**: Led all Agile ceremonies for development team, improving process standardization and documentation quality

Engine Control Systems Engineer | John Deere | *May 2020 – June 2022*

- **Performance Optimization**: Decreased C code unit test run time from 33,000ms to 25ms by optimizing diagnostic test logic
- **DevOps Excellence**: Resolved build errors in Jenkins CI/CD server by authoring and correcting sections of functional requirements specifications (FRS)
- **Root Cause Analysis**: Investigated and resolved multiple system defects through root cause analysis, code implementation, MATLAB model changes, and HIL testing

- **Documentation**: Authored functional requirements specifications improving development process efficiency

Drivetrain Embedded Software Engineer | John Deere | *October 2019 – May 2020*

- **Feature Implementation**: Implemented code for measured direction and output shaft speed in 8R IVT tractors using CANalyzer and TractorSim for virtual testing
- **System Enhancement**: Improved rear PTO clutch protection by modifying torque estimation run rate, validated through SIL and HIL testing
- **Critical Defect Resolution**: Eliminated "stuck in park" defect on 8R tractors by modifying code to align controller commands, validated via SIL testing in TractorSim

Controls Continuous Improvement Software Engineer | John Deere | *March 2019 – October 2019*

- **Rapid Solution Delivery**: Delivered experimental software to resolve aftertreatment regen issues in under two days, releasing critical warehouse hold
- **Process Optimization**: Decreased turnaround time for new engine payload releases by ~15-20% by presenting and aligning on new de-tier release process with DTAC support team
- **Team Process Innovation**: Introduced new stand-up meeting format using OneNote, eliminating ambiguity in team responsibilities and improving project visibility

PVV Mechanical Development Engineer | John Deere | *May 2018 – March 2019*

- **Automation Development**: Reduced post-test data processing time by at least 75% by authoring 8-10 automation scripts in VBScript and Python for DIAdem
- **Tool Creation**: Created software request tool for test engineers that decreased payload lead times and reduced risk of using incorrect software builds
- **Process Improvement**: Implemented automated workflows for test data processing and software deployment

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EDUCATION & CERTIFICATIONS

Master of Engineering, Mechanical Engineering | Iowa State University, Ames, IA
Bachelor of Science, Mechanical Engineering | Iowa State University, Ames, IA
Systems Engineering Certificate | California Institute of Technology (Caltech)

KEY ACHIEVEMENTS

- **Performance Optimization**: Achieved 99.9%+ improvement in unit test execution time (33,000ms to 25ms)
- **Team Efficiency**: Delivered 30% reduction in overtime and 90% reduction in weekend work through resource optimization
- **Quality Excellence**: Reduced software release errors by 25-30% through structured process implementation
- **Automation Impact**: Reduced post-test data processing time by 75%+ through custom automation tools
- **Operational Efficiency**: Cut test schedule management time by 90% and new engineer onboarding time by 50%