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Position Description

Lead Software Engineer – Data Implementation

Reports to: Software Engineering Team Lead

Position Summary

The Lead Software Engineer – Data Implementation is a senior engineer who turns customer requirements into working configuration on the ITS platform. Working from specifications, this role implements the data and code changes that tailor the system to each customer's training and qualification-management needs — both onboarding new customers and adapting the platform as the programs of existing customers evolve. This role also owns the investigation and resolution of data integrity issues, applying disciplined root cause analysis to every case. This is a senior position with a clear growth path: the work begins focused and concrete and broadens over time into wider technical scope, project estimation, and the mentorship of other engineers. AI-assisted development is central to how the work gets done, and this role is expected to lead the way in adopting and advancing it.

Core Competencies

- Data Implementation – Translating customer requirements into reliable, well-tested changes on the platform
- Data Integrity & Problem Solving – Investigating and resolving issues through rigorous root cause analysis
- Technical Range & Growth – Building broader platform knowledge over time, including full-stack work as capacity allows
- AI-Assisted Development – Championing modern AI tooling and raising the team's confidence and capability with it
- Mentorship – Growing into a trusted technical resource and mentor for other engineers
- Communication – Explaining technical work clearly to both technical and non-technical audiences
- Continuous Improvement – Turning data patterns and defect trends into upstream quality gains

Key Responsibilities

Implementation & Delivery

- Translate customer specifications into accurate data and code changes on the platform, primarily using SQL Server scripts on the Classic platform and PostgreSQL scripts and API integrations on the new platform
- Write, test, and execute changes, partnering with QA to verify results before they reach customers



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- Own the investigation and resolution of data integrity issues, identifying root causes rather than treating symptoms
- Document implementation decisions and known risks so the work remains traceable and maintainable
- Drive continuous improvement in data load reliability, retrieval performance, and implementation consistency across the platform

Growth & Technical Range

- Build deep domain knowledge by working alongside experienced engineers, with an aptitude for picking up new areas quickly
- Stay effective as the database platform evolves over time
- Contribute to the existing platform when data implementation work allows, building full-stack experience across ASP.NET, React, and Next.js over time
- Contribute to estimating the effort and timeline of customer requests as the role matures
- Grow into a technical anchor and mentor as depth and domain knowledge increase

AI Leadership

- Use AI-assisted development tools daily as a core part of the workflow
- Contribute to and refine the team's internal AI tooling to make the work more automated and consistent
- Champion broader AI adoption, helping other engineers use these tools with greater confidence and judgment

Collaboration & Communication

- Communicate status, data risks, and timelines clearly to stakeholders
- Partner with QA, Product, and Client Services to validate implementations and ensure customer-facing behavior meets expectations
- Share findings and improvement recommendations with engineering leadership

Education & Experience

- Bachelor's degree in Computer Science, Information Systems, or a related field (or equivalent experience)
- 6+ years of progressive software engineering experience, with meaningful depth in data engineering, database systems, or backend development
- At least 2 years in a senior or lead technical role, with demonstrated ownership of complex data implementation or integration work
- Strong command of relational database concepts: schema design, query optimization, data migration patterns, and retrieval troubleshooting



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- Experience diagnosing and resolving data integrity issues at the database–application layer boundary
- Demonstrated experience using AI coding tools (Claude Code, GitHub Copilot, or similar) in professional work, with a track record of sharing that practice with others
- Experience mentoring or developing other engineers, whether formally or informally
- Ability to write technical documentation that is precise, complete, and accessible to both technical and non-technical audiences
- Track record of improving team processes or implementation quality—not just executing within them
- Strong communication skills; able to explain a complex data problem and its resolution to a non-engineer without losing accuracy
- Genuine enthusiasm for AI/ML tooling and a pattern of early, practical adoption

Success Indicators

- Data implementation work is delivered reliably, on schedule, and with documentation that supports long-term maintainability
- Data integrity issues are resolved thoroughly and with root cause findings that reduce recurrence over time
- Engineers across the team demonstrate improved capability in data implementation and database troubleshooting as a direct result of mentorship
- AI tooling adoption increases team-wide, with engineers citing this role’s influence on their practice
- Stakeholders consistently report confidence in data implementation quality, status communication, and resolution outcomes
- Engineers mentored by this role grow in capability and express increased confidence handling complex data problems independently
- This role is recognized by peers and leadership as the technical anchor for data implementation across the engineering organization