Valerii Martseniuk

Engineering Manager

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Summary

Engineering Manager leading two teams (10 engineers) reporting to the CTO at Newsela, an edtech platform serving millions of students . Shipping AI-powered features that reached top-tier adoption within weeks. Track record of delivering cross-org initiatives spanning 6+ teams without dedicated program management. Currently driving spec-driven development across the engineering org - an AI-native methodology compressing requirements-to-implementation, with early results showing ~50% faster ticket completion.

Key Achievements

- Led LLM-powered feature delivery (OpenAI, Gemini) that reached the platform's highest adoption tier within weeks of launch - zero PII sent to external models, with a novel content evaluation framework built from scratch
- Consolidated ~12 microservices into a single monolith with zero production incidents; transformed a system with zero observability into a fully monitored platform
- Coordinated cross-org initiative spanning 6+ teams with no dedicated project team - secured a major district renewal (direct revenue impact)
- Drove spec-driven development adoption across product and engineering, securing buy-in from senior product leadership - versioned specs as single source of truth, consumable by LLM coding agents
- Developed IC into Tech Lead through epic captain model; engineer later promoted to lead another team

Experience

Newsela

EdTech platform serving millions of K-12 students and teachers | 2018 - Present

Engineering Manager

Jan 2025 - Present | 2 teams, 10 direct reports, reporting to CTO

People & Team Building:

- Built culture of team-driven innovation: engineers independently replaced vendor TTS (AWS Polly) with open-source (Coqui TTS), expanding language support
- Currently managing dual EM + interim TL responsibilities during leadership transition
- Addressed performance gaps through structured, multi-month feedback processes with documented expectations and clear outcomes
- Developed IC into interim Tech Lead through epic captain model

Product & Strategy:

- Co-led product discovery at story mapping stage - defined success criteria before engineering work began
- Led LLM-powered graphic organizers to top-tier adoption - zero PII exposure, novel evaluation process
- Led technical planning for Generation Genius video integration (1,000+ videos) - coordinated across product, engineering, content, and the acquired company's team to ship on time for Back to School

Technical Leadership:

- Led ~12 microservices consolidation - zero incidents, from zero observability to comprehensive monitoring

- Drove Writing platform migration using strangler pattern - maintained production stability through Back to School launch
- Resolved critical data integrity escalation; transformed response into daily health instrumentation and overhauled on-call
- Introduced central spec repository - product commits requirements as PRs, enabling AI-assisted implementation

Tech Lead

Aug 2022 - Jan 2025 │ Learning Delivery / Plan & Deliver

- Designed content visibility system V2 - replaced tens of thousands of content IDs per user with handful of set slugs; "one of biggest projects in company history"
- Created phased TRD framework (12 revisions); adopted org-wide as reference model for cross-team planning
- Shipped a differentiated instruction feature and content visibility V2 same day - zero critical bugs during 5-week experiment with 40% of paid users

Senior Software Engineer

2020 - Aug 2022

- Built platform API integrations (LTI, Google Classroom, Canvas, Clever) for tens of thousands of teachers
- Promoted through three levels in four years

Software Engineer

2018 - 2020

Immersion

2017 │ 4 months

- Designed automated blue-green deployment pipeline (Terraform, Python) replacing manual EC2 process

SoftServe (contractor for Amplify)

2013 - 2016 │ 3.5 years

- Full-stack engineer on Amplify's education platform (Python, JS, Java, MongoDB, MySQL)

Education

- M.S. Computer Science - United States
- M.S. Applied Mathematics / Automation Engineering - Ukraine

Technical Skills

LANGUAGES	Python, TypeScript/JavaScript, SQL
FRAMEWORKS	Django, Flask, FastAPI, React, Next.js
AI/ML	LLM integration (OpenAI, Gemini), prompt engineering, LangFuse, evaluation frameworks
INFRASTRUCTURE	AWS, CI/CD, Docker, Terraform, Datadog, monitoring/observability
DATA	PostgreSQL, MongoDB, MySQL, data modeling, API design
PROCESS	Spec-driven development, DDD, TDD, Scrum, cross-functional coordination