

Sara Burke

Ph. D., M.S., B.S. | (she/her) | Senior Engineering Manager
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With 12+ years leading digital transformation initiatives and a Ph.D. in educational psychology, I specialize in translating complex technical systems into actionable business solutions. I've successfully delivered learning platforms and communication management systems across diverse industries. My expertise bridges technical leadership with learning science principles, enabling me to build and scale digital education solutions that drive measurable results. I excel at aligning cross-functional teams and stakeholders through clear communication and shared technical vision.

Work Experience

Senior Engineering Manager, Launch by NTT Data; Senior Engineer, Postlight (acquired) May 2022 – present

A global digital business and IT services leader, bringing strategy, design, and engineering to deliver platforms and experiences that drive digital transformation.

- **Fortune 10 Enterprise:** Led AI-powered development framework implementation for 400-developer org facing ad-hoc tooling and compliance gaps. Designed governance framework (HIPAA/SOC2), tool evaluation criteria, and DORA-based measurement systems. Delivered 4-month pilot targeting 70% adoption, 90% training completion, and zero security incidents with scalable ROI methodology.
- **New York Metropolitan Transportation Authority:** Led engineering team developing and maintaining [digital signage platform](#) serving 9M+ daily users; spearheaded modernization of development practices including implementation of CI/CD pipelines, conducted comprehensive security/architecture reviews and orchestrated successful knowledge transfer to client engineering team — resulting in enhanced system reliability, streamlined deployment processes, and seamless operational transition.
- **For a leading national insurance company:** Led architecture and development of enterprise-scale risk management platform (\$1B+ AUM), architecting domain-driven solutions while managing a 6-person team and cross-functional stakeholders; delivered continuous platform improvements using **Java/ Spring Boot, TypeScript/React, PostgreSQL, AWS, and Kubernetes** infrastructure, resulting in optimized inter-departmental workflows and strengthened client partnerships through executive-level technical consultation.

Software Engineer, Learning Designer, Product Manager, Bronx Charter School for Better Learning January 2017 – March 2023

Transformed BBL's pedagogy, the Subordination of Teaching to Learning developed by Dr. Caleb Gattegno, into digital learning experiences hundreds of students use weekly.

- Designed, produced, developed, and maintained iReadBetter, the iPad version of Words In Color/The Silent Way curriculum, in collaboration with school co-founder to help hundreds of children across four schools learn to read using **TypeScript, Ionic, Angular, and Firebase**. Practiced iterative design based on regular teacher feedback and student interviews.
- Created a tool for teachers to manage students' learning trajectories by designing, developing, and maintaining a classroom management interface for iReadBetter learning data on the web using **Ruby on Rails, Firebase, and Postgres**.
- Created educational iPad apps used in all BBL schools. Coordinated international engineering teams, designed and produced iSpellBetter (iOS, Android) to help children learn to spell, and iCountBetter (iOS) to help children teach themselves numerosity and magnitude.

Ph. D. & M.S., Educational Psychology, Learning Science, IT Consultant, University of Wisconsin August 2010 – May 2018

The #1 ranked Educational Psychology department in the United States.

- Architected, developed, and deployed a cloud-based research platform that enabled data collection from 300+ participants using **Amazon Mechanical Turk, PsiTurk, Python, Flask, MySQL, and RedHat's OpenShift Kubernetes**; published open-source software to accelerate early-career researchers' work.
- Demonstrated how people learn and use incidental information by analyzing data using GLMMs and Bayesian methods using **Pandas, NumPy, SciPy, R, and Stata**; contributed to many peer-reviewed publications and book chapters and presented findings at 12+ scientific conferences

Education

- PhD, Educational Psychology & Learning Science, University of Wisconsin—Madison
- MS, Educational Psychology & Learning Science, University of Wisconsin—Madison
- BS, Cognitive Science, Indiana University Bloomington