

BRANDON LACY

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OBJECTIVE

Senior Full-Stack Software Engineer with 6+ years of experience designing and scaling data-intensive web applications serving 1,000+ users. Specialized in modernizing legacy systems, developing service-oriented backends, and mentoring engineers to improve delivery quality. Seeking a senior engineering role to drive innovation in scalable platforms, leveraging expertise in React, C#, and cloud-native systems.

SKILLS

Frontend Engineering	React, TypeScript, Next.js, Angular, Svelte, Tailwind CSS, AG Grid, Kendo UI, Ant Design
Backend & Platform Engineering	C#, ASP.NET Core, ASP.NET MVC, Entity Framework Core, Node.js, REST APIs, Python, Java, Rust
Cloud & Distributed Systems	Azure DevOps, AWS, Azure Functions, CI/CD Pipelines, Docker, Kubernetes
Data & Storage Systems	Microsoft SQL Server, PostgreSQL, SQLite, MongoDB, OpenXML
Testing, Tooling & Applied ML	Playwright, Vitest, XUnit, TensorFlow, Unity, Tauri

EXPERIENCE

Software Engineer II (Full Stack) Kiewit	May 2019 - Current <i>Omaha, NE</i>
<ul style="list-style-type: none">Developed a React, TypeScript, C#, and SQL benchmarking platform used by 1,000+ users across 60+ districts, enabling comparison of multi-million-dollar estimates with historical data to improve cost forecasting accuracy.Re-architected a legacy OData API into a service-oriented backend using C#, ASP.NET Core, and Entity Framework Core, refactoring 75% of stored procedures while maintaining zero downtime for 1,000+ active users.Optimized analytical workflows with AG Grid Enterprise, supporting 40,000+ rows with custom aggregation and filtering, reducing analyst processing time by 25–30%.Engineered a centralized calculation engine enforcing 100+ domain rules, authorization policies, and Imperial/Metric handling, ensuring consistent financial metrics across dozens of reports and services.Architected an asynchronous export pipeline using Azure Functions, OpenXML, and Azure Blob Storage, enabling reliable generation of large Excel reports with queuing, retries, and failure recovery.Implemented a multi-year business planning platform with Angular, C#, and Kendo UI, integrating real-time CRM data to forecast revenue and resource allocation across 3–5 fiscal years.Established admin tooling with role-based access control and automated testing using Playwright, Vitest, and XUnit, improving coverage across critical user flows and reducing regression risk.Mentored 5+ junior developers and interns through regular code reviews, architectural discussions, and technical guidance, contributing to improved code quality, shared standards, and stronger team delivery consistency.Led development of a React component library based on Ant Design principles and adopted by 8+ applications. Collaborated with UX designers to deliver 50+ components that significantly reduced development time.Solo designed and delivered an internal training management platform from proof of concept to production, automating email reminders, completion tracking, and training delivery, reducing administrative overhead by approximately 30%.Integrated a TensorFlow-based AI defect detection model into a production weld-management system, automating inspections, reducing manual review time by 40%, and improving detection accuracy by 75%.	

- Developed three Unity-based VR rehabilitation applications and a clinician-facing monitoring tool for stroke recovery, supporting interactive task design and real-time data capture.
- Evaluated VR-based recovery in a clinical research setting with stroke patients, contributing to experimental design, data analysis, and validation of VR systems demonstrating comparable performance to traditional dexterity recovery methods.
- Developed and evaluated a bridge-health-aware convoy routing system in collaboration with the U.S. Army Corps of Engineers, merging OpenStreetMap (OSM) and National Bridge Inventory (NBI) data and scoring candidate routes via a multi-criteria heuristic; validated across 25 scenario-based simulations generating 15 routes each.

EDUCATION

Master of Computer Science, University of Nebraska Omaha
Certificate in Software Engineering

2022 - 2024

Bachelor of Computer Science, University of Nebraska Omaha
Minor in Mathematics

2017 - 2021

PROJECTS

Cross-Platform Media Organizer with Local-First Architecture. ([GitHub](#))

- Architected a cross-platform desktop application using Tauri (Rust) and React, designed around a local-first, offline-capable architecture for managing large personal photo and video libraries.
- Designed a high-efficiency media storage model using BLAKE3 content hashing and filesystem hard links to eliminate duplication while preserving an app-independent directory structure.
- Implemented an incremental, two-stage ingest pipeline backed by SQLite, supporting background hashing, metadata extraction, and resilient filesystem↔database reconciliation to avoid unnecessary reprocessing.

Personal Portfolio Website for Technical Profile and Projects. ([brandonlacy.com](#))

- Built a responsive personal portfolio website using Next.js and Tailwind CSS, deployed on Vercel, with a focus on performance, accessibility, and clean content presentation.
- Showcases selected projects, technical experience, and academic publications.

AWARDS & RECOGNITION

- [HackMidwest](#) Winner – Best Use of Data (2024) – Integrated AI-powered natural language workflows into the USDA “Ask” platform, enhancing information retrieval and user interaction through applied machine learning and data processing.
- [HackMidwest](#) Winner – Best Use of Data (2025) – Built “Ideafy,” a Next.js application leveraging AI-driven clustering and visualization to generate and organize idea networks within an interactive idea cloud.
[GitHub](#) ([Video](#))

PUBLICATIONS

- Co-authored a peer-reviewed VR-based assessment system for evaluating gross hand dexterity, contributing to VR application development, experimental design, and data analysis; validated in a clinical research setting demonstrating comparable neural activation and task performance to traditional assessments (2020).
- Co-authored a peer-reviewed study on bridge-health-informed route planning, contributing to large-scale simulation and algorithmic analysis to evaluate convoy routing tradeoffs across roadway and bridge networks; published at the International Conference on Transportation and Development (ASCE, 2024).