BRANDON LACY

+1(531) 777-4242 ◇ Omaha, NE
contact@brandonlacy.com ◇ linkedin.com/in/brandonlacy5 ◇ brandonlacy.com

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) May 2019 - Current
Kiewit *Omaha, NE*

- Developed a React, TypeScript, C#, and SQL benchmarking platform used by 5,000+ 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%.

Graduate Researcher Jan 2022 - May 2024
University of Nebraska Omaha *Omaha, NE*

- 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 2022 - 2024
Certificate in Software Engineering

Bachelor of Computer Science, University of Nebraska Omaha 2017 - 2021
Minor in Mathematics

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).