

# KARLA SIERRA-MENDOZA

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## Education

### University of Nebraska - Lincoln

Bachelor of Science in Software Engineering

August 2022 – May 2026

Lincoln, NE

## Technical Skills

**Programming Languages:** Python, JavaScript (TypeScript), Java, Ruby, PHP, C, C#

**Web Technologies:** HTML, CSS

**Frameworks & Libraries:** React, Express.js, Django, Ruby on Rails, Spring

**Tools & Technologies:** Git/GitHub, Linux, Docker, AWS, Node.js, MySQL, OpenAI API, Claude API

## Experience

### First National Bank of Omaha

August 2025 - Present

Lincoln, NE

Software Developer

- Contributed to the development of a mobile application to improve financial literacy for children, teens, and young adults by designing three distinct age-appropriate user views and features.
- Developed backend services and logic using Spring Boot to handle user registration, transaction management, and account tracking across user types.
- Collaborated on UI design decisions for child, teen, and adult user flows, ensuring usability and clarity of financial concepts across age groups.

### Firespring

May 2024 - Present

Lincoln, NE

Software Engineering Intern

- Leveraged and redesigned AWS Lambda functions to better inform the team about the status alerts on production and beta cloud resources.
- Developed an AI-powered FAQ chatbot using Retrieval-Augmented Generation (RAG) with OpenAI and Qdrant to deliver accurate, context-aware answers from a curated knowledge base.
- Improved application performance and maintainability by implementing new features, refactoring and updating legacy code, and writing RSpec tests.

### Privy-AI

August 2024 - April 2025

Lincoln, NE

Software Developer

- Developed an MVP leveraging Whisper AI for transcription and AWS Bedrock to produce EHR-compliant SOAP notes for physical therapists.
- Implemented the application endpoints, event handlers, and accessors using Express.js and TypeScript to support core functionality.
- Designed and implemented application web pages using React and TypeScript and integrated the developed endpoints.
- Prompt-engineered the Haiku model to generate standard SOAP notes from recorded sessions by prompting for each of the standard sections.

### University of Nebraska - Lincoln

February 2024 - May 2024

Lincoln, NE

Game Developer Intern

- Designed and presented visual layouts of the game to stakeholders, facilitating clear communication and alignment on design concepts and project objectives.
- Prototyped and refined game mechanic ideas through feedback and iteration to strengthen player engagement.

## Projects

### AuditAI | React, Node.js, TypeScript

December 2025

- Built a full stack app that uses OpenAI, Claude, and CodeBERT to detect and classify code vulnerabilities, score severity, highlight affected lines, and suggest fixes.

### Private Diary | React, TypeScript, Express.js, Firebase, MySQL

May 2025

- Developed a secure journaling web application that allows users to create, view, and manage personal diary entries, set their mood, meals, and activities throughout the day.
- Designed the overall software architecture, selected core technologies, and delegated implementation tasks to other developers.

### Zulip (Open-Source Contribution) | JavaScript, Python, CSS, HTML, Django

April 2024

- Implemented backend features in Django and Python, including an up-vote system and improved group chat name visibility.