Jael Andre

Project 3

Narrative Animal Shelter

CS 499

Professor Alim

08/24/2025   
  
**Description:**

The Animal Shelter Dashboard was originally developed in Python using MongoDB in a Jupyter Notebook to manage animal records. For my capstone, I enhanced it into **a MERN stack (MongoDB, Express, React, Node.js) full-stack web application**, enabling modern, interactive, and scalable functionality.

**Why I Included It:**

This artifact demonstrates my ability to move from academic scripts into real-world software engineering practices. The MERN stack version highlights my knowledge of **databases, full-stack development, and modern web technologies.** It’s one of my strongest projects for employability because it shows that I can work with industry-relevant frameworks to create interactive applications.

**Reflection:**

This was the most challenging enhancement because it required learning and integrating multiple new technologies. I had to design RESTful APIs in Node/Express, connect them to MongoDB, and build a React-based frontend with search and filter functionality. I also learned to manage state and ensure smooth client-server communication. A big takeaway was understanding UI/UX design principles — for example, adding filtering options and clear status labels improved usability. One challenge was deployment, but resolving it gave me practical experience with testing and debugging in full-stack environments. This artifact demonstrates course outcomes in **software engineering, databases, and team-oriented development practices**, though it was an individual project.