Name: Catherine Stacey

Major: Computer Science Major

Standing: Senior

Title: Intern

Department: Development

Company: Kyros Digital

Company URL: https://kyrosdigital.com/

Supervisor: Nathan Jean

Supervisor Title: Project Manager

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Period worked: August 22,2024 - December 1, 2024

Total Hours worked: 231.5 hours

Date: December 1, 2024

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Experience report

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Kyros Digital is a small software development company located in downtown Grand Rapids. The company focuses on expertise, reliability, maintainability, and value by way of custom-built software applications for its clients. I worked with the developer team, specifically as part of the Development Department, as an intern learning the nuances of creating and maintaining large-scale applications, particularly in the field of AI development.

Main Project: Evao

During my internship, I contributed to one primary project called Evao. It was an AI-powered application that would help the manager or supervisor of the sales teams analyze his team members in depth. Based on the performance of each member of the sales team, Evao will give in-depth evaluations with actionable suggestions. My role involved full-stack development in this project, exposing me to different parts of the development process.

Tasks I Worked On:

1. **Creating a Custom 404 Page**

I created a basic but more styled 404 page and updated the application to use this instead of the default.

2. **Search Bar Functionality**

I helped (and attempted to help) wire up the search bar in the layout component to enable search and filtering on the organizations.

For example, searching for characters like "kyr" would filter the list to show only the organization named "Kyros Digital."

3. **User Creation Form**

I created a way for users to be programmatically created via a form. By providing the required data and submitting it to the API endpoint /api/v1/users/new, the process programmatically creates a Clerk user and stores the clerk_user_id on the Prisma User object.

Previously, to create a user, the Clerk user (for authentication) was manually created, and the clerk_user_id was required to submit the new user form.

Technical Skills Acquired:

- **Authentication and User Management with Clerk**:

I gained hands-on experience working with Clerk, a third-party authentication service. This included creating users programmatically, authenticating them, and linking them to a database using Prisma.

- **Frontend Search and Filtering with React**:

I expanded my knowledge of React by implementing search and filter functionality in a component that dynamically updates the display based on user input. I learned to manage state effectively and pass data across components to make the UI responsive to user queries.

- **Prisma ORM**:

I gained deeper knowledge of Prisma, particularly in handling complex database operations, such as storing user authentication details in relation to Clerk's user data. This involved understanding Prisma's schema, defining relations between models, and interacting with databases efficiently.

- **Error Handling and UX Design**:

  I learned how to design and implement custom error pages to improve user experience by replacing default error pages with more personalized ones.

- **API Integration**:

  I learned how to send data from a frontend form to a backend API endpoint and handle the response. For example, I worked on creating a new user in Clerk and storing the necessary information in the database.

- **Documentation and Communication Skills**:

  Technical Documentation: I improved my ability to document complex processes and systems. This included writing detailed explanations of API endpoints (like the user creation endpoint) and front-end components to guide other developers.

  User Documentation: I worked on creating user-friendly documentation to help end-users navigate new features, such as the user creation form and search functionality.

- **Version Control and Task Management**:

  I strengthened my skills in version control, particularly in Git. I ensured my commits were well-documented, with clear and concise messages describing the changes. I also used issue tracking tools to manage tasks and document progress.

Non-Technical Skills Acquired:

- **Time Management and Prioritization**:

  I improved my ability to manage time effectively and prioritize tasks based on urgency and importance.

- **Collaboration and Teamwork**:

  I worked closely with other team members, particularly on features like the search bar and user creation form. This helped me become more comfortable communicating and collaborating.

- **Problem-Solving and Critical Thinking**:

I developed a methodical approach to breaking down challenges, such as API integration issues or database structure problems.

- **Adaptability and Learning on the Go**:

I learned to quickly adapt to new tools and technologies, such as Clerk and Prisma, by researching and applying solutions independently.

- **Attention to Detail**:

I focused on ensuring that all forms worked as expected, data was correctly stored in the database, and UI components responded accurately to user input.

- **Feedback and Continuous Improvement**:

I sought feedback from teammates and applied it to improve my work.

Internship Reflection:

When I started the internship, the tasks assigned to me aligned well with my current education and technical knowledge. However, the complexity of the tasks gradually increased, with the progress of the internship, which actually pushed me to learn new concepts and technologies on the job. Though challenging, this helped me grow and instill confidence in problem-solving.

This internship experience helped me understand my career interests. I initially wanted to be a software developer, but the exposure to front-end development biased my interest and shifted it toward becoming a web developer. Further, the AI aspects of the project interested me in looking toward AI engineering later in my career. Even though the company did not extend any further offer other than the internship itself, I appreciate the experience and knowledge acquired.

Areas for Further Learning

My internship highlighted areas where I need to pursue additional education, particularly in front-end development and client/server applications. These areas were the most challenging for me, and I plan to dedicate more time to mastering them.

Internship Highlights:

1. Having a very understanding and patient work environment.
2. Getting hands-on experience with front-end and back-end integration.
3. Learning the ins and outs of office documentation and best practices.

Internship Challenges:

1. Struggling with time management.
2. Dealing with computer issues when running larger applications.
3. Feeling frustrated when I realized I didn't know what I was doing.

Additional comment: Before finding my internship, I applied to three other companies and interviewed at two.