

Kate Fernandez

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EDUCATION

University of California, San Diego

Bachelor of Science, Cognitive Science - Machine Learning, Minor in Computer Science

San Diego, CA

Sept. 2020 – Jun. 2025

EXPERIENCE

Software Development Intern

Jul. 2024 – Present

San Diego Supercomputer Center - Shiley-Marcos Alzheimer's Disease Research Center

San Diego, CA

- Oversaw the development of key application modules (e.g., contact management, protocol tracking, subject records), transitioning from AccessDB forms to a modern web interface. This transformation enhanced user workflows and streamlined data management processes, delivering an accessible and scalable platform.
- Designed and implemented CRUD functionalities and user interfaces using React, TypeScript, Golang, and Tailwind CSS, improving usability and facilitating seamless user interactions.
- Contributed to maintaining a large-scale codebase with GitLab, Git, and Next.js, participating in daily syncs and code reviews to deliver iterative solutions that meet stakeholder needs.

Web Development Intern

Dec. 2023 – Jun. 2024

County of San Diego

San Diego, CA

- Designed and developed the county's film site landing page, leveraging Figma to create user-friendly and visually appealing prototypes that streamlined navigation and accessibility.
- Conducted user interviews and usability tests with filmmakers and location managers, identifying pain points and implementing user-centric design improvements to enhance engagement and functionality.
- Transitioned prototypes from Figma to a fully functional WordPress site, ensuring efficient implementation and alignment with user and stakeholder expectations.
- Presented the final design and key insights at the U.S. Chamber of Commerce Conference, emphasizing the streamlined permitting process and its potential to significantly boost the local film industry's revenue.

PROJECTS

Jobify

Dec. 2023 – Mar. 2024

- Developed a full-stack MERN(MongoDB, Express, React, Node.js) application for job listing management, implementing CRUD operations and data visualizations for progress tracking.
- Implemented JWT-based authentication, ensuring data protection and preventing unauthorized access, while optimizing client-server communication with Axios for enhanced performance.
- Centralized state management with React Context API, gaining hands-on experience in middleware, controllers, and error handling.

Exploring Cardiovascular Health Implications

Oct. 2023 – Dec. 2023

- Conducted statistical analysis (Logistic Regression, T-tests, ANOVA) using Python to evaluate factors affecting heart disease risk, identifying key predictors such as cholesterol, glucose, smoking, gender, and height.
- Developed comprehensive data visualizations using Matplotlib and Seaborn to illustrate key findings on cardiovascular disease risk factors.

BudgetPal

Aug. 2023 – Oct. 2023

- Developed a responsive budget management application using React, React Router, and Tailwind CSS, ensuring a user-friendly experience for tracking budgets and expenses.
- Built a flexible budget creation system allowing customization of budgets, spending categories, and expense tracking, leveraging React Router's action loader for enhanced performance and dynamic data handling.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, TypeScript, HTML/CSS, Golang

Frameworks: React, Next.js, Node.js, JUnit, WordPress, Material-UI

Developer Tools: Git, Gitlab, Docker, Visual Studio Code, IntelliJ, Figma

Libraries: pandas, NumPy, Matplotlib, Seaborn