

# LAIBA AFZAL

## FULL STACK SOFTWARE ENGINEER

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### TECHNICAL SKILLS

Languages: JavaScript • Python

Databases: SQLite3 • SQLAlchemy • PostgreSQL

Frameworks: Flask • Express • React • Redux

Tools: HTML • CSS • Render • AWS

**OTHER SKILLS** • Data Analysis • Languages (English, Urdu, Hindi, Punjabi)

### PROJECTS

#### KAYKEW | [Github](#) | [Live](#)

Express • JavaScript • React • Redux • CSS

- Enhanced security of user accounts by implementing **BCrypt** for hashing passwords and securely storing user credentials, preventing the storage of plain text passwords and ensuring data integrity.
- Developed **RESTful API using Node.js, Express, and Sequelize** for efficient data retrieval and modification, providing a scalable structure for CRUD operations across multiple user-related features.
- Incorporated **React Router** for smooth client-side routing, enabling seamless navigation between the user's notebooks, tasks, and other sections without full-page reloads, resulting in improved app performance.
- Architected global state management using **Redux** for seamless data flow across the application, improving component communication and ensuring a consistent user experience across notebooks, tasks, and tags.

#### ARTISAN ALLEY | [Github](#) | [Live](#)

Flask • SQLAlchemy • React • Redux • HTML • CSS • JavaScript

- Designed and implemented **API endpoints** using **Flask Blueprints** to modularize the codebase, improving maintainability and scalability of the backend.
- Leveraged **SQLAlchemy ORM** to efficiently query and manage complex relational data in a PostgreSQL database, utilizing model relationships to handle foreign keys and ensure data integrity.
- Integrated **Redux for state management**, ensuring consistent data flow across React components, which improved user experience by minimizing re-renders and optimizing application performance.
- Implemented custom **CSS and media queries** to create a responsive, mobile-friendly design, ensuring a seamless user experience across different devices.
- Utilized version control and branching using **Git Feature Branches** to manage the work of multiple engineers working on various features at the same time.

### EXPERIENCE

#### MOUNT SINAI HOSPITAL • New York, NY

##### CLINICAL RESEARCH COORDINATOR

07/2021 – 04/2024

##### CLINICAL RESEARCH ASSOCIATE

12/2018 – 07/2021

- Promoted from Clinical Research Associate after demonstrating a **25% increase in data collection** efficiency.
- Managed and collected clinical research data related to the Spinal Cord Injury Model System, a multi-center research initiative designed to better understand treatment outcomes and lead research initiatives on the consequences of spinal cord injury, leading to **85% participant completion** for all participant follow ups due.
- Used R to analyze and interpret highly complex data on clinical research studies, leading to **30% more accurate predictions** for treatment outcomes.
- Developed statistical analyses scripts in R/SAS, increasing data analysis speed by **40%** across research projects.
- Designed posters for scientific conferences, contributing to **20% higher engagement** in conference discussions due to visually impactful presentations.
- Actively assisted participants in completing research protocols, leading to **90% participant completion** for all scheduled autonomic functional assessments and exoskeleton-assisted walking sessions.

### EDUCATION

#### APP ACADEMY • Full Stack Web Development

Completed 09/2024

#### ICAHN SCHOOL OF MEDICINE MOUNT SINAI • MS in Clinical Research • New York, NY

2021 – 2023

#### HUNTER COLLEGE • Dual BA in Human Biology and Psychology • New York, NY

2016 – 2020