

# LAIBA AFZAL

## FULL STACK SOFTWARE ENGINEER

laiba.afzal0102@gmail.com | 646-982-6250 • [LinkedIn](#) • [Github](#) • Portfolio • New York, NY

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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

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#### 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 such as notebooks, tasks, and tags.
- 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*

- Architected a robust backend using **Flask** and queried it efficiently through model relationships through the build-in SQLAlchemy
- Implemented **Redux** to efficiently handle global state, ensuring data synchronization across components to enhance user experience by providing faster load times and a consistent interface
- Styled the user interface using **CSS** to create a responsive and visually appealing design, enhancing the overall user experience
- 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

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#### CLINICAL RESEARCH COORDINATOR • Mount Sinai Hospital • New York, NY

**07/2021 – 04/2024**

- Promoted from Clinical Research Volunteer in July 2021, 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
- Used R to analyze and interpret highly complex data on clinical research studies, leading to **30% more accurate predictions** for treatment outcomes.
- Utilized REDCap for electronic data collection, automating **15%** of data processing tasks to improve project timelines.
- Developed scripts for statistical analyses in R/SAS, increasing data analysis speed by **40%** across several research projects.
- Designed posters for scientific conferences, contributing to **20% higher engagement** in conference discussions due to visually impactful presentations.

#### CLINICAL RESEARCH VOLUNTEER • Mount Sinai Hospital • New York, NY

**12/2018 – 07/2021**

- Collected data relating to the Spinal Cord Injury Model System at Mount Sinai, leading to **85% participant completion** for all participant follow ups due.
- Participated in the collection of data for projects seeking to understand the acute consequences of spinal cord injury on the autonomic nervous system (blood pressure), functional outcomes after robotic exoskeletal training, and pain management, improving data accuracy by **15%**.
- Actively assisted participants in completing research protocols, leading to **90% participant completion** for all scheduled autonomic functional assessments and exoskeleton-assisted walking sessions.

## EDUCATION

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APP ACADEMY • Full Stack Web Development	Completed 09/2024
ICAHN SCHOOL OF MEDICINE MOUNT SINAI • <i>MS in Clinical Research</i> • New York, NY	2023
HUNTER COLLEGE • <i>Dual BA in Human Biology and Psychology</i> • New York, NY	2020