

# DANA ROCHA

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## TECHNICAL SKILLS

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**Languages & Frameworks:** Python (Apache Airflow, Flask), JavaScript (React, Material UI), HTML, CSS (Materialize), SQL, R

**Tools & Environments:** Visual Studio Code, Git/GitHub, Unix/Linux, Docker, RStudio, Firebase

**Databases:** Google Firestore, MongoDB, PostgreSQL

## WORK EXPERIENCE

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### Allen Institute

Seattle, WA

#### **Data Analyst I - Allen Institute for Brain Science**

Mar 2023 – Present

- Designing and implementing an automation solution for an internal cloud-based data processing pipeline
  - Automating workflow processes by replacing all manual steps with Apache Airflow, Python, and Bash
  - Collaborating with the software engineering team to refine design decisions and ensure scalable, efficient solutions
- Developed a user-friendly Shiny web application, optimizing weekly data analysis by 30% through automated data updates and expedited access to metadata across multiple modalities
- Enhanced data accessibility and user experience by implementing feature improvements and deploying 11+ Shiny web applications that centralize data extraction, visualization, and analysis
  - Worked with stakeholders to understand feature requests and verify implementation choices support user needs
- Planned and led internal initiatives and events for 2024-2025, fostering a supportive work environment and aligning with company goals

#### **Software Engineer Intern - Allen Institute for Neural Dynamics – [GitHub](#) | [Demo](#)**

Aug 2022 – Jan 2023

- Led the end-to-end development of a Minimum Viable Product (MVP) [web application](#), serving as a prototype website that played an integral role in enabling the organization to publish data publicly for the first time
  - Designed a responsive front-end user interface using React components and a service layer for REST API queries
  - Gathered and clarified requirements from stakeholders, created wireframes to guide web application design
  - Implemented unit tests, test automation, and continuous integration through Jest, ESLint, and GitHub Actions
- Contributed to an [open-source Python package](#) by adding a feature that streamlines credential file creation, making it easier for users to retrieve and access their credentials
- Added a feature to an [open-source Python package](#) that enables simpler dataset search through a third-party REST API
- Integrated a new feature in an [open-source Python package](#) that allows users to create and store validated data schemas directly to JSON files

### Merck & Co.

Boston, MA

#### **Informatics Intern**

Jan 2020 – Aug 2020

- Trained machine learning models to predict key compounds for initial testing, supporting three drug discovery teams
  - Built data pipelines utilizing SQL, Pipeline Pilot, and PilotScript to extract data from public and internal databases
  - Created interactive Spotfire data visualization dashboards to visualize over 250,000 chemical compounds and genes, supporting data-driven decision-making for the organization
- Presented monthly data insights to 50+ stakeholders, fostering collaboration and ensuring alignment with objectives

## TECHNICAL PROJECTS

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#### **Room Reservation System, Capstone project – [GitHub](#) | [Demo](#)**

Aug 2022

*Web application to track room reservation information - developed with JavaScript, React, Google Firebase*

- Collaborated closely with a team of two to design, develop, and successfully deliver the project
- Wrote backend logic, database endpoints, and secure user authentication
- Crafted algorithms to create, delete, and prevent double-booking of reservations
- Established a responsive user interface of 3 pages utilizing Materialize and React Router for optimal user experience

#### **Inspiration Board, Group project – [GitHub](#)**

Jul 2022

*Web application where users can leave “sticky notes” on digital boards - developed with JavaScript, React, Python, Flask*

- Led a team of four to deliver an interactive web app for creating, reading, and deleting boards and notes
- Constructed two React components that enable users to like or delete a note and display notes from a selected board

## EDUCATION

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### **Ada Developers Academy**

Seattle, WA

*Full Stack Web Development & Computer Science Fundamentals*

Mar 2022 – Jan 2023

Technologies: Python, JavaScript, SQL, PostgreSQL, Flask, React

### **Northeastern University**

Boston, MA

*B.S. in Biochemistry, M.S in Bioinformatics*

2018, 2020