

# 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

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

Mar 2023 – Present

- Currently designing and implementing an automation solution for an internal cloud-based data processing workflow
  - Leveraging Apache Airflow, Python, and Bash to streamline operations by replacing all manual steps
  - Collaborating with a software engineering team on design decisions and approaches to ensure effective 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
- Successfully enhanced data accessibility and user experience by implementing feature improvements and deploying more than 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
- Led the creation and management of Dockerfiles, guaranteeing efficient deployment and testing across multiple teams
- Planned 2024 DEIB initiatives as a leadership team member of the internal Women in Tech employee affinity group

#### **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](#), functioning as a prototype website. This project 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
  - Employed unit tests, test automation, and continuous integration through Jest, ESLint, and GitHub Actions
- Contributed a feature to an [open-source Python package](#) 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
- Implemented functionality 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
  - Constructed interactive Spotfire data visualization dashboards that provided a comprehensive view of over 250,000 chemical compounds and genes that facilitated 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 develop and successfully deliver the project
- Wrote backend logic, database endpoints, and secure user authentication
- Crafted algorithms to create and delete reservations, and prevent double-booking
- 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 to create, read, and delete boards and notes
- Engineered two React components that display notes for a selected board and allow users to like or delete a note

## 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