

Durham, NC | (919)-699-0967 | [c.t.tran95@gmail.com](mailto:c.t.tran95@gmail.com) | [linkedin.com/in/crystal--tran/](https://www.linkedin.com/in/crystal--tran/) | [crystaltran.dev/](https://crystaltran.dev/)

### TECHNICAL SKILLS

**Languages / Libraries:** Python, Javascript, Typescript, React, SQL, jQuery

**Frameworks / Tools:** Django, Docker, AWS, NodeJS, Express, Flask, PostgreSQL, MySQL, Vitest, unittest, Git, Github, Zenhub

### WORK EXPERIENCE

#### Software Engineer Intern

November 2023 - March 2024

Rithm School

San Francisco, CA

- Developed an announcement app within a Django-based learning management system, enabling announcements to be globally available across all templates and **improving communication efficiency**.
- **Automated a sprint pairing** application by coding the stable roommate algorithm and creating an intuitive drag-and-drop interface using jQuery, reducing the need for manual student pairing.
- Participated in code reviews, bug resolution, and documentation updates, reinforcing code quality and supporting team knowledge sharing through technical presentations.
- Maintained **99% test coverage** across an **80,000-line codebase** by writing new tests and optimizing testing processes with model factories and Django's `factory_boy`.

#### Clinical Laboratory Associate II

March 2022 - September 2023

Grail

Durham, NC

- Collaborated with engineers to implement a **site-wide tagging system** to optimize sample search, enable test requisition filtering by status, and improve navigation for over 986,000 samples.

#### Manufacturing Associate IV

June 2019 - March 2022

Biogen

Morrisville, NC

- Led the peginterferon beta-1a drug campaign with **100% successful batch completion** by overseeing automation testing, daily operations, stand-ups, and troubleshooting quality issues.
- Improved operator training on new manufacturing processes by revamping documentation of standard operating procedures and batch production records, enhancing clarity and accessibility.

### TECHNICAL PROJECTS

#### Jobly

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

Job search platform enabling users to view companies and apply for jobs.

- Built a full-stack job board site, leveraging **React** to deliver reusable, testable components that foster a consistent user experience.
- Designed a **RESTful API** backend with **Express Router** to facilitate communication between frontend and backend components. Utilized a centralized API helper class to boost maintainability and simplify debugging.

#### Warbler

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

Social networking site where users can share content and connect with people.

- Established secure user authentication and authorization across all routes with **93% test coverage**. Utilized Flask-WTFORMS for data validation and CSRF protection on POST routes.
- Implemented a "like" messaging feature using Flask SQLAlchemy to establish a Many-to-Many relationship between user and message models.

#### ShareBnB

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

Home rental application that allows users to share and rent outdoor spaces.

- Engineered a relational database schema with **PostgreSQL** to manage user data, listings, and bookings. Developed efficient mapping of relationships between records to optimize database querying.
- Optimized file management and reduced database load by implementing **AWS S3** for BLOB storage and URL storage in the database.

### EDUCATION

#### Rithm School

2023 - 2024

Full Stack Web Development Bootcamp

San Francisco, CA

#### Appalachian State University

2014 - 2019

Bachelor of Science in Cellular & Molecular Biology, Minor in Chemistry

Boone, NC