

# Ella Demarest

**Full-Stack Software Engineer | React, Python, SQL, AWS | Backend & Human-Centered Development**

Local: Boston, MA | Permanent: San Diego, CA | Open to relocation

[Ella Demarest Portfolio](#) | [LinkedIn](#) | [ellajdemarest@gmail.com](mailto:ellajdemarest@gmail.com) | (858) 222-7877

## EDUCATION

**Northeastern University**, Boston, MA

Anticipated Graduation: Apr. 2026

*Candidate for a Bachelor of Science in Computer Science*

GPA: 3.84/4.0

**Computer Science Concentration:** Human-Centered Computing

**Honors:** Dean's List | Honors Program/Scholarship

## TECHNICAL SKILLS AND CERTIFICATIONS

**Languages:** Python | TypeScript | Javascript | SQL | Java | HTML | CSS | PHP

**Frontend:** React | Tailwind

**Backend:** Node.js | FastAPI | Express | Flask | Laravel | REST APIs

**Databases & Data Warehousing:** MongoDB | PostgreSQL | MySQL | Redshift

**Cloud, Tools & Platforms:** AWS | GCP | Azure | Firebase | Docker (basic) | Git/GitHub | Postman

**Methodologies & Practices:** Agile | CI/CD pipelines

**Certifications:** Oracle Certified Associate Java SE 8 Programmer | Certified Veeva CRM & Vault Associate

## EXPERIENCE

**Remix Therapeutics**, Watertown, MA | *Software Engineering Co-op*

Aug. 2025 – Dec. 2025

- Built a cloud-based RNA-Seq tool with Python + AWS Nextflow to analyze splicing patterns and cross-reference PubMed research with AI
- Developed algorithms to clean and reformat large datasets, removing redundancy and low-quality runs
- Applied SRA Toolkit, pysam, and bioinformatics libraries for bulk correlation analyses of experiments vs. public studies

**Regeneron**, Armonk, NY | *Software Engineering Intern (Contract Extension)*

May 2025 – Present

- Developed a full-stack React + Flask application with real-time data sync and automated dashboards
- Built ETL pipelines integrating multiple APIs for data cleaning and storage
- Automated document role extraction with spaCy NLP, reducing manual processing by 90%
- Designed a CLI tool to detect quality issues and streamline reporting

**IoT Open Innovation Lab**, Northeastern University, Boston, MA | *Research Assistant*

Oct. 2024 – Present

- Engineered a conversational engine for a digital twin networking app using LLM orchestration, enabling dynamic scenario generation and turn-based user interactions
- Built a LinkedIn scraping and enrichment tool using Python + OpenAI APIs, producing structured user profiles

**Vue Health**, Boston, MA | *Digital Intern (Contract Extension)*

Jan. 2024 – Oct. 2024

- Built custom WordPress themes using PHP, HTML, and Tailwind linked with Advanced Custom Fields
- Created an Interactive Visual Aid utilizing PHP and Javascript
- Designed emails with HTML/CSS for clients and tested in Veeva CRM

## PROJECTS

**Collaborative Evidence Tracker (React & Express)**

New York, NY | Jul. 2025

- Built a full-stack real-time tracker for Phasmophobia with participant tracking, session management, and Discord SDK integration (via Discord Activity or browser session)

**Pokemon Sleep Research Hub (React)**

Boston, MA | Feb. 2025

- Built a full-stack web community forum in React with functionality for post creation, comments, likes, and tag-based filtering
- Designed customizable user profiles with trainer codes, including privacy settings for displaying information on a public "Friend Finder" billboard

**RNA Analysis Tool (React & Python)**

Boston, MA | March 2025

- Built a platform for uploading FASTA files and running predictive RNA analyses
- Delivered results through interactive React visualizations, enabling faster structural biology insights