# Griffin DesRoches

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# Summary

Driven first-year student with a strong foundation in mathematics and statistical modeling, pursuing a dual degree in Statistics and Computer Science. Enthusiastic about applying quantitative methods and computational problem-solving to real-world data challenges. Seeking a summer 2026 internship in a technological, data-focused role.

#### Education

#### University of Massachusetts Amherst

Sept 2025 - May 2029

B.S. in Statistics, B.A. in Computer Science

• Planned Coursework by Summer 2026: Data Structures, Object-Oriented Programming, Applied Statistics, Introductory Data Science & Machine Learning, Linear Algebra, Calculus, Probability, Discrete Mathematics

#### Cambridge Rindge & Latin School

Sept 2021 - May 2025

# Experience

# Software Engineer Intern

Boston, MA

Dana Farber Cancer Institute, Dr. Giovanni Parmigiani Lab

Feb 2025 - May 2025

- Developed a production-ready R Shiny SaaS application enabling real-time interaction with the DRCMD R package (Doubly Robust Causal Inference with Missing Data), streamlining usage by research analysts
- Engineered a fully reactive UI in R Shiny that enabled custom variable selection and reduced manual data processing time by 50%, improving analytical workflow efficiency and accessibility.
- Conducted statistical analysis of missing data patterns across five clinical variables, evaluating Random Forest and Gradient Boosting models for treatment-effect estimation under high missingness and noise, validating the doubly robust properties of the R package through simulation.

#### Software Engineer Intern

Cambridge, MA

Innovators For Purpose

July 2023 - Nov 2023

- Developed a scalable MVC backend in Node.js for a full-stack quiz-taking application, designing a database with 30+ models and 50+ relationships ready for use in classrooms in a study to collect AI sentiment among children
- Utilized GitHub in an agile, 5-person team to manage the code base, successfully merging numerous features while maintaining code stability across the frontend and backend groups.

#### Teaching Assistant

Cambridge, MA

Cambridge Rindge & Latin School

Sep 2024 - Jan 2025

 $\circ$  Assisting students in developing AP Physics knowledge by holding  $\sim$  3 hours of office hours weekly; aiding lead teachers in grading 20 students daily work; incorporating new Fluid Mechanics unit into the curriculum for the first year. Hosting extensive review sessions to ensure student success on the AP exam

#### Information Technology intern

Somerville, MA

City of Somerville City Hall

Jun 2024 - Aug 2024

- Installed dozens of high-quality PC workstations with VPN access in the departments of HR, Finance, and Housing
- Safely disposed of Hundreds of Hard Drives and Ram Sticks on public sector computers in equipment overhaul
- Worked On call for technical/software/network support for Public Sector employees within the city

#### Projects

#### easytree.xyz - ASCII File Directory Generator

Github repository

- Built a fullstack SaaS web application that generates ASCII file trees from public GitHub repositories, simplifying documentation, onboarding, and LLM-assisted code analysis.
- Engineered a responsive React 19 frontend with a Node.js/Express backend, optimizing performance with shallow cloning and automated cleanup. Integrated Axios for seamless API communication
- o Deployed the app on Render for CI/CD integration, ensuring smooth updates and continuous availability.

# Personal site - Griffindesroches.me

Github repository 🗹

• Designed and developed a responsive personal website using HTML5 and CSS3, serving as a portfolio to showcase project work as well as a blog. Deployed the site on Vercel for simple deployment and hosting.

# Skills

Languages: Java, R, Python

Machine Learning/DS: Pandas, Caret, NumPy, SuperLearner, Shiny, ggplot2, Streamlit

Technologies: Node.js, Express, Git, Github, VS Code, Cursor IntelliJ, R Studio, Unix Shell, Ubuntu, Mint, IATEX Productivity: Cursor, LLM Usage, Image/Video/Text/Audio generation, Prompt engineering, Context engineering