

Robert Bennett

✉ RLTBennett@icloud.com
☎ [+1 \(917\) 566-2224](tel:+19175662224)
🏠 rltb.me
🔗 [rben01](https://github.com/rben01)

Work Experience

Web Developer and Data Analyst, *World Science Foundation* — New York, NY April 2020–Present

- ◆ Use HTML+CSS+JS, the d3 and Three.js libraries, and Rust+WASM to develop interactive math and science simulations for use in courses on worldscienceu.com, in particular for Professor Brian Greene's [Special Relativity](#) and (not yet public) Quantum Mechanics courses. These demos convey complex mathematical and physical principles by balancing scientific accuracy, aesthetically pleasing design, performance, and user friendliness. Full list of demos: rltb.me/projects.
- ◆ Perform miscellaneous backend data-related tasks, producing structured data from unstructured data using Rust's [Polars](#) dataframe crate, and creating reports and visualizations of data using Julia.

Freelance Software Developer (part-time, concurrent with the above) December 2021–May 2022

- ◆ Developed an app for client that uses QuickBooks API to connect to client's account, download invoice data, and produce PDFs containing line items and all associated attachments, receipts, etc.
- ◆ Wrote algorithm to lay out text on PDF entirely from scratch by inspecting glyph sizes and computing line wrapping locations.

Experienced Analytics Associate, *PricewaterhouseCoopers* — New York, NY August 2016–August 2019

- ◆ Built analytics models and pipelines to ingest and clean data and to produce models providing clients with actionable insights. Data analytics skills and techniques included big data pipelines, clustering, time-series modeling, linear models, and ML/neural nets.

Education

Bachelor of Science, *Harvey Mudd College* — Claremont, CA 2012–2016

- ◆ GPA 3.58/4.00. Major in Mathematics, Minor in Economics. Graduated with Distinction.
- ◆ Senior Thesis: [Fibonomial Tilings and Other Up-Down Tilings](#) (2016). Parameterized the problem of Fibonomial tilings and a similar class of tilings in a way that unified and generalized existing work.
- ◆ Computer Science and Math Courses: Data Structures, Algorithms, Statistical Linear Models, Numerical Linear Algebra, Graph Theory, Computability Theory, Topology, Real Analysis, Abstract Algebra

Personal Projects

Collagen: The Collage Generator [🔗 rben01/collagen](https://github.com/rben01/collagen)

- ◆ Collagen aims to alleviate the widespread rasterization of vector graphics and other inappropriate use of image formats by defining a specification for combining images and SVG elements into a single file.

COVID-19 Tracker [🔗 rben01/covid19](https://github.com/rben01/covid19)

- ◆ A website with graphs to help track the spread of COVID-19 throughout the U.S. and the world. The frontend was built with d3 and AsciiDoctor, the backend (data ingestion, cleaning, joining, etc.) with the Python data science stack.

Advent of Code 2021 [🔗 rben01/advent_of_code_2021](https://github.com/rben01/advent_of_code_2021)

- ◆ Did all 25 problems in Rust and wrote up accompanying explanations.

Programming Languages and Libraries

- ◆ Rust, HTML+CSS+JS, d3, Webpack, Three.js, Julia, Python (core language + data science stack), POSIX shell + Bash, Git, LaTeX