

Robert Bennett

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🏠 rtlb.me

🔗 [rben01](#)

Work Experience

Web Developer and Data Analyst, World Science Foundation, *New York, NY*

April 2020–Present

- ◆ Develop interactive math and science simulations using HTML, CSS, JS, D3, Three.js, Rust, and WASM. Simulations convey complex mathematical and physical principles by balancing scientific accuracy, aesthetically pleasing design, performance, and user friendliness. They can be viewed at rtlb.me/projects.
- ◆ Perform backend data-related tasks, produce structured data from unstructured data, and create reports and visualizations in order to support organization's data needs. Use Rust's [Polars](#) library and the Node.js [Vega-Lite](#) visualization library.

Freelance Software Developer, Part-time, concurrent with the above, *New York, NY*

December 2021–May 2022

- ◆ Developed an app that uses QuickBooks API to connect to client's account, download invoice data, and produce PDFs containing line items and all associated receipts and other attachments.
- ◆ Wrote algorithm to produce PDF from raw data, which included algorithmically measuring glyphs and the sizes of text boxes in order to lay out text.

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 using clustering, time series modeling, linear models, and ML/neural nets.

Programming Languages and Libraries

Rust, HTML + CSS + JS, D3, Vega-Lite, Three.js, Webpack, Python (core language + data science stack), Julia, POSIX shell + Bash, Git, AsciiDoctor, LaTeX

Projects

Collagen: The Collage Generator

🔗 [rben01/collagen](#)

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

COVID-19 Tracker

🔗 [rben01/covid19](#)

Built 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](#)

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

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.
- ◆ Coursework: Data Structures, Algorithms, Statistical Linear Models, Numerical Linear Algebra, Graph Theory, Computability Theory, Topology, Real Analysis, Abstract Algebra