## Rebecca Turner

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I am a computer science BS enrolled at Brandeis University passionate about software engineering and art, including graphic design and motion graphics. I'm looking for an internship in software development where I can contribute meaningfully and learn real-world development practices.

## **EDUCATION**

The New School of Northern Virginia (June 2017, Honors Diploma in computer science awarded) GPA: 3.89 / 4.00 Brandeis (August 2017–May 2021), computer science major GPA: 3.835 / 4.00

Courses include AP Calculus BC, AP Physics (mechanics / electricity and magnetism), COSI 12B Advanced Programming Techniques, and COSI 21A Data Structures and the Fundamentals of Computing.

## DEVELOPMENT

I have extensive experience with Java, Python, C, Javascript, PowerShell, LTEX, PHP, HTML 5, CSS 3, and the Microsoft Office suite, and moderate experience with Bash, shell scripting, Ruby, Rust, Go, Wolfram Mathematica, C#, F#, and the .NET API.

I have developed a number of independent software projects.

I  $\it C$  the Light, a distance-estimating ray marcher designed to render images of quaternion Julia sets. Written in  $\it C$ .

Github: 9999years/i-c-the-light Paper: becca.ooo/i-c-the-light.pdf

juliaplotter, a script to render cells or grids of arbitrary Julia sets, to overcome difficulties other renderers have in visualizing the many possible values of the constant c in the Julia set for a given rational function. Written in plain Python.

Github: 9999years/juliaplotter

The Daily Report, a highly-customizable framework for generating daily agendas for use with receipt printers. Capable of reading and processing Google calendars, outputting weather forecasts, countdowns, to-dos, daily news, and other useful information. Currently running on a Raspberry Pi interfacing with a Star thermal receipt printer. Python.

Github: 9999years/daily-report

PSVarDump, a PowerShell module for debugging PowerShell scripts by inspecting variable contents. PowerShell script. Github: 9999years/PSVarDump

becca.ooo/mandelbrot, an interactive web app to explore the Mandelbrot set and visualize incremental values of the underlying sequence at arbitrary points. HTML 5 canvas, Javascript.

Twitter bots such as @gardensbot, which posts grids of plant and animal emoji in virtual "gardens" every other hour, and @goodwordsbot, which generates fake but plausible English words from Latin and Greek roots. PHP.

## DESIGN / MOTION GRAPHICS

I have experience with Adobe CC suite software (namely Photoshop, Illustrator, and AfterEffects), and Cinema 4D across a variety of fields — I have created vector illustrations, manipulated photos and videos, and created motion graphics from scratch.

A WIRED article (11 Beautiful, Psychedelic GIFs Created by a Math Whiz) linked to a directory of GIF artists I curate (gifartists.9999yea.rs).

Motion graphics reel: becca.ooo/reel

becca.ooo/fox, A program to simulate and visualize the interactions of plant and animal populations in a virtual ecosystem. HTML 5 canvas, Javascript.

glitcher.becca.000, an in-browser databending app which procedurally glitches images by modifying their binary data. PHP, Javascript.

becca.ooo/integral, an interactive web app to visualize integral approximations. HTML 5 canvas, Javascript.

#wrap, an extension for Google Chrome to wrap Tumblr's hashtag interface to one line, addressing a widely-held annoyance with Tumblr's user interface. As of October 2016, three years after its publication, #wrap had 30,315 users. CSS.