To Whom It May Concern:

I am looking to transition to a full time remote employment industry career developing software. I have nine years' experience as an educator and research data scientist with project management and documentation, graphic design, and system design in the academic sector. I have two years' experience with agile business project development and one year with startup software development in the private sector. I have a working knowledge of R, Python, Markdown, Mermaid, RegEx, C++, HTML5, CSS3, JavaScript ES6, and JSON. I am conversant in Visual Studio, GitHub, Linux, and GIMP.

If software development skills proceed along a path from simple static hard code to more pliable dynamic functional code to data-generation derived soft pretzel code, I am comfortable somewhere between the second and third tiers. I am not yet at the stage where I can fully conceptualize a project in terms of output responses → dynamic function requirements → data requirements → input stimuli without the benefit of refactoring hindsight. My developmental thought processes skew towards a functional programming paradigm, but I am conversant in the more popular object oriented style. I have limited experience with imperative and none with declarative programming. I am only really familiar with using singleton, state machine, and command design patterns. My working knowledge of graph theory software design is limited to decision trees and simple machine learning algorithms. My unit tests are primitive and more akin to independent proofs-of-concept that gently probe rather than violently stress test my design components. These are all avenues in which I hope to improve.

I am new to integrating my development, design, and programming skills. So, I have begun creating utility software projects to help me build, manage, and present future software projects: a building better tools to build better tools mentality. Leveraging my versatile development, documentation, and coding skills would provide valuable assets to any business that creates custom software applications. If your development goals happen to be educational, analytical, or research oriented (especially behavior, system dynamics, or ecology), my prior career would provide a unique insider perspective.

I have provided minimal viable product application documentation, code, and demonstration samples in the attached resume and below on my portfolio website. These attempt to highlight my various sundry, slick, and superior skills in HTML (Portfolio Website), JavaScript (Five Minute Fantasy), and Python (Bacteria Lot ID) software design and development. If you wish to get a feel for my progression as a programmer, the earliest project is from 2012 (Bacteria Lot ID) and the latest from 2022 (Five Minute Fantasy). I did not develop software contiguously as a full time occupation through the intervening years, but rather sought opportunities to utilize those skills as my jobs warranted. See resume 'Relevant Experience' and portfolio 'FAQ' sections for further details.

Sincerely,
Jeffrey Bardwell, Ph.D.

PS: Nobody has actually ever *asked* me those questions, frequently or otherwise. It's just a bizarre malappropriate naming convention, which I have embraced.

PPS: Someday I will refactor that bacteria identification software as a proper JavaScript web app. Upgrading it from 2.7 to 3.0 introduced a few lingering bugs. Admittedly, my Python is a bit rusty.

**Email**: jhbardwell@gmail.com | **Phone:** 4344732064 (send a text message first)
**Portfolio**: https://jhbardwell.github.io | **GitHub**: https://github.com/jhbardwell

# JEFFREY BARDWELL

Software Developer. Scientist.

EMAIL: jhbardwell@gmail.com | PORTFOLIO: https://jhbardwell.github.io/ | LOCATION: Jacobus, PA

## PERSONAL PROJECTS

**Narrative Game: Five Minute Fantasy**

Modular adventure game proof-of-concept that adapts to player choices using systemic narrative, time, location and encounter mechanics. Built using HTML Canvas, CSS, and JavaScript.

**Frontend Website: Portfolio Projects**

Dynamic webpage that displays and organizes software project data using a single page application design. Created using custom graphics. Built using HTML, CSS Grid, and JavaScript Mermaid.

**Application: Bacteria Lot Identification Matrix**

Interactive GUI that identifies unknown isolates using biochemical tests and can display results for known strains. Also factors for sample collection and culture media. Built using Python Tkinter.

## RELEVANT EXPERIENCE

**Research Scientist**: Aptagen, LLC Jacobus, PA 09/2021 – present
NAICS Code 541714: Research and Development in Biotechnology (except Nanobiotechnology)

I created JSON research archival databases and investigated biotechnology AI/ML models. My efforts allowed us to more efficiently assess grant opportunities and visually conceptualize data.

**Data Scientist**: White Rabbit Intel, LLC Durham, NC 03/2020 – 08/2020
NAICS Code 518210: Data Processing, Hosting, and Related Services

I refactored existing Python 3.6 spaghetti code into a series of concise functions. My coding and collaborations helped our software-as-service startup keep the product launch date on schedule.

**Proposal Coordinator**: A Square Group, LLC Frederick, MD 11/2019 – 05/2020
NAICS Code 541611: Admin. Management and General Management Consulting Services

I researched healthcare contract opportunities, wrote Agile proposals, and acted as a stakeholder communications hub. My efforts helped our company submit five proposals and land one contract.

**Web Developer**: Twigboat Press, LLC Brookneal, VA 05/2017 – 11/2019
NAICS Code 511130: Book Publishers

I used GIMP 2.8 to make promotional graphics. I coded R 2.15 scripts to correlate ebook sales and set up a Sendy ESP to post newsletters via AWS SES. This resulted in a marked sales uptick.

**Lecturer**: Longwood University Farmville, VA 08/2013 – 05/2016
NAICS Code 611310: Colleges, Universities, and Professional Schools

I taught an R-centric course to undergraduate science majors demonstrating experimental design, data sorting, and model testing. The course boosted student coding literacy and critical thinking.

## HOBBIES

aquaponics, cooking, community theater, gardening, woodworking, writing novels