

Danielle Colucci

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FULLSTACK DEVELOPER

A full stack engineer with a wide-range of experience creating innovative applications. Currently learning an extensive curriculum in an immersive software engineering bootcamp. Passion for learning new skills and keeping up with current technology trends. Past experience includes translational cancer research, as well as an education in mathematics and biology. Excited about potentially combining previous experience in life sciences with the software field.

TECHNICAL & INTERPERSONAL SKILLS

Languages: JavaScript, Python, C++, HTML, CSS, SQL, MongoDB, JSON, EJS, DTL, LaTeX

Libraries and Frameworks: React, Express.js, Django, Semantic UI

Databases and other: PostgreSQL, MongoDB, RESTful Routing, JSON API, MVC, OOP

Interpersonal skills: collaboration, time management, dependability, leadership

TECHNICAL PROJECTS

Wordle Clone - 12/2022 - [GitHub](#) | [App](#) - JavaScript | HTML | CSS

A Wordle-style app that allows users to select a difficulty, guess a secret word, and play as many rounds as desired.

- Developed, designed, and deployed a JavaScript app that pulls a random word from a word list data file and allows the user to input guesses while dynamically updating the game state and rendering guess accuracy to the user
- Increased usability and accessibility by allowing user to restart, toggle sound, and play multiple rounds
- Implemented a modern design, including small-screen design, with interactive animations to provide an enjoyable user experience

TCR V Gene Polymorphism - 08/2022 - [GitHub](#) - Python

A program that extracts key gene information from large data files and detects polymorphic changes between alleles

- Wrote a function to translate DNA sequences into amino acid sequences via dictionary reference
- Built a Python program that reads gene FASTA files and builds a nested dictionary correlating the gene to its official gene name, allele, DNA sequence and amino acid sequence (via aforementioned translation function)
- Utilized constructed dictionary to detect meaningful polymorphic differences between established and novel TCR V gene alleles to explore the relationship between TCR sequence and functionality

Healthy Habits - 01/2023 - [GitHub](#) | [App](#) - JavaScript | Express.js | Node.js | MongoDB | CSS

A wellness-based app where users can log recipes and exercises to encourage the development of healthy routines

- Developed and deployed a MEN stack app with MVC architecture following RESTful routing principles and with full CRUD functionality on detailed recipes (with the ability to add ingredients and leave reviews) and exercises (with the ability to toggle public and private views)
- Implemented Google OAuth to create a read-only functionality for guests and full functionality to logged in users, as well as the ability to view recipes and exercises created by other users
- Designed a visually appealing theme and layout to provide an engaging user experience and encourage wellness

EXPERIENCE

Cancer Center at Massachusetts General Hospital, Research Technician Charlestown, MA, 07/2021 - 11/2022

- Collaborated with Jamie Heather, PhD in the lab of Aaron Hata, MD, PhD to assist in broad screen of 20+ healthy donors to identify ALK reactive T cells
- Characterized and quantified activation of aforementioned T cells in the presence of ALK peptide and ALK+ cell lines to progress development of immunotherapies to target ALK+ non-small cell lung cancer
- Analyzed experimental and genetic (see above) data, produced meaningful figures, and effectively reported results
- Mentored and managed projects and daily tasks of undergraduate summer intern

Providence College, Biology Student Providence, RI, 01/2020 - 05/2021

- Individualized project under Joseph DeGiorgis, PhD to expand understanding of the role of amyloid precursor protein in squid retinal cells by detecting its associated presence to light-adaptive pigment granules and motor proteins via Western blot and confocal microscopy

Providence College, Math Research Student Providence, RI, 09/2019 - 12/2020

- Student led research under Joanna Su, PhD to study categorizable surfaces in 4 dimensions via Cayley graphs and reflection and rotation groups

EDUCATION

General Assembly

Remote, Certificate Expected: 03/2023

- Completing 12-week, immersive software engineering bootcamp that involves creating 4 frontend, backend, and full stack applications in teams and independently.

Providence College, Bachelor of Science in Mathematics/Biology

Providence, RI, Graduated: 05/2021

- Graduated Summa Cum Laude graduate with cumulative GPA of 3.94
- Member of Pi Mu Epsilon Honor Society and Liberal Arts Honors College
- Highest Distinction in Mathematics Concentration; Highest Distinction in Biology Concentration
- Selected coursework: Computer Science, Linear Algebra, Abstract Algebra, Logic, Cancer Biology, Genetics, Biomedical Ethics.