Danielle Colucci

Boston, MA | (781)-307-6484 | ddcolucci99@gmail.com | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

FULLSTACK DEVELOPER

A full stack engineer with a wide-range of experience creating innovative applications. Passion for learning new skills and keeping up with current technology trends. A graduate of an immersive software engineering bootcamp where I learned an extensive curriculum. 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, TypeScript, Python, HTML, CSS, SQL, JSON, JSX, C++, C#
Libraries and Frameworks: Angular, React, .NET, Express.js, Node.js, Mongoose, Sequelize
Databases and other: Microsoft SQL Server, PostgreSQL, MongoDB, REST APIs, Git, Responsive Design, UI Design
Interpersonal skills: communication, collaboration, time management, dependability, leadership

TECHNICAL PROJECTS

Patient Sample Tracker - 02/2023 - [GitHub](#) | [App](#) - JavaScript | TypeScript | React | Express.js | Node.js | PostgreSQL
A full stack web app inspired by patient derived model development in translational research, where authorized users can log patient sample data to track cell line and PDX model progress
- Developed a front end React/TypeScript SPA that communicates with a PEN stack back end via AJAX calls, allowing full CRUD functionality on patient sample data
- Implemented authorization and administrator status in addition to JWT authentication to mimic a locked environment, such that sensitive patient information and data is accessible only to users with proper credentials

Rec Drop - 02/2023 - [GitHub](#) | [App](#) - JavaScript | React | Express.js | Node.js | MongoDB
A full stack web app where users can create movie, TV, music, and book recommendations and create personal playlists
- Collaborated with small team in construction of a front end React SPA that communicates with a MEN stack back end via AJAX calls, allowing full CRUD functionality on media recommendations for JWT authenticated users and interaction via comments, likes, and playlists, as well as search and filter functionality
- Oversaw construction of front end, designed a simple yet exciting theme and layout, including responsive mobile design, and digitized artwork, icons, and logos to provide an engaging user experience

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 and designed 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

EXPERIENCE

VHB Inc, Software Engineer   *Watertown, MA, 06/2023 - Present*
- Develop, maintain, and upgrade enterprise applications for State Historic Preservation Offices
- Write effective and efficient front end code in the Angular/TypeScript framework and back end code in the C#/.NET framework
- Participate in routine QA of existing applications and applications in active development to identify, troubleshoot, and resolve bugs
- Engage in client meetings and team discussions to identify client expectations, design and plan user facing features and workflows, and identify how to both achieve client necessities and consider budget constraints

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 Research 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 - 12/2019*
- 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 Received: 03/2023*
- Completed 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 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.