Julia Howes

Los Angeles, CA
952-807-3912
julia.howes@gmail.com
linkedin.com/in/julia-howes/
https://github.com/juliahowes124
juliahowes.com

SUMMARY

I am a recent biomedical engineering graduate and a prospective full-stack developer. My most impactful experiences during University helped to expose my appreciation for software and inspire a career shift, which I have pursued head-on since graduating in Spring 2020. I am eager to apply what I love doing to challenging and innovative projects that improve the lives of others.

SKILLS

Languages:

- JavaScript
- TypeScript
- CSS
- HTML
- C#
- C++
- Python
- MATLAB
- LabVIEW

Frameworks and Tools:

- Git
- Angular
- ASP.NET Core
- SQL
- React
- NodeJS
- Express
- Bootstrap

RELEVANT COURSEWORK

- Build an app with ASP.NET Core and Angular from Scratch
- The MERN Fullstack Guide
- Data Structures and Algorithms
- The Complete Python Bootcamp
- Beginning C++ Programming
- The Complete SQL Bootcamp

EXPERIENCE

Computer Engineering Intern at Monteris Medical, Plymouth MN

May 2019 – August 2019

- Developed LabVIEW software to automate and triple the efficiency of a time-consuming inspection process. The program initializes a serial connection, collects and plots a data stream, validates input from the inspector, and automatically generates a report.
- Implemented LabVIEW features to improve ease, accuracy, and speed (10x) of medical laser analysis. Script rapidly processes historical data points to calculate and index laser waveform characteristics. It also provides a graphical display with the option to isolate wave pulses to investigate anomalies.

PROJECTS

PetNet – A Peer to Peer Pet Adoption Web Application

- A platform where owners looking to rehome their pets can connect with those looking to adopt.
- The app is built with an Angular front-end written with TypeScript and using Bootstrap CSS components, a RESTful API server built with ASP.NET Core in C#, and SQLite.
- Features include user registration and login, secure authentication, session management, photo-upload with Cloudinary, private messaging, pagination, filtering, and sorting.

Travel App

- A minimalist social app to share travel experiences.
- Built with a React front-end, a RESTful API with Node.JS and Express, and a MongoDB database.
- Features include user registration and login, and post creating, editing, and deleting.

EDUCATION

Bachelor of Biomedical Engineering, University of Minnesota – Twin Cities

September 2016 – May 2020   **GPA: 3.4**

Assistant Researcher at Department of Biomedical Engineering

- Designed fabrication procedures of optical ultrasound detectors for intravascular photoacoustic imaging of narrow coronary arteries.
- Assessed device quality by analyzing optical resonance with LabVIEW and MATLAB.

Publication: *S.V. Thathachary, J. Howes and S. Ashkenazi, "Polymer Waveguides for Improved Sensitivity in Fiber Fabry-Perot Ultrasound Detectors," in IEEE Sensors Journal, Feb. 2020.*