Henry J. Cabral

Software Engineer

Professional Experience

Mechanical/Automation Engineer @ Aprecia

February 2019 – Present | East Windsor, NJ

- → Currently saving R&D over $100,000 by designing/prototyping parts in-house
- → Inventor, Filing 2 Patent Applications
- → Leads 3DP R&D dosing and agitation equipment development by utilizing technical knowledge to create concepts before integration into machine builds
- → Develops and maintains PLC code for Product Development software primarily using Ladder Logic

Production Engineer @ Getinge

January 2018 – February 2019 | Wayne, NJ

- → Lead Validation efforts for several manufacturing processes within two product lines (HemoPro and HemoPro 2)
- → Created and executed test protocols/reports for process validations (IQ, OQ, PQ, Design Verification)
- → Provided on-demand process equipment (on-the-floor engineering) support

Project Engineer @ Upstart

September 2016 – January 2018 | Newark, NJ

- → Developed marketable device suitable of relieving muscle fatigue for orthopedic surgeons
- → Worked closely with surgeons to ensure device met specifications and product vision
- → Maintained relationship with suppliers to produce components essential to design outputs
- → Built key designs, tooling, and other 3D printed/machine-able parts via Solidworks to be implemented into device

Project Showcase

CloudSenseIO *In-progress*

JavaScript (ES6), Gatsby.js, React, Express, Python, Sockets.io, MongoDB, Heroku, Raspberry Pi

- → Weather Station that records temperature, humidity and air quality values which are displayed on a dashboard for data visualization and logging
- → Background server hosted on Raspberry Pi reports data to front-end application which is deployed on Heroku
- → Custom mechanical casing for permeability designed using Solidworks and 3D printed in-house

Ecommerce App *Deployed*

JavaScript (ES6), React, Redux, Firebase, Heroku, Firebase, Stripe API

- → Created using React/Redux, React Router, Firebase and Stripe API (Payments)
- → Uses session persistence to remember user information/cart items, routes between clothing item categories

Facial Recognition App *Deployed*

JavaScript (ES6), React, Express, Node.js, CSS, Clarifai API, Bcrypt, Heroku

- → Built using React with a RESTful API server using Express
- → Image Recognition Web Application deployed on Heroku featuring authentication
- → Incorporated Clarifai's Machine Learning Facial Detection Model
- → Implemented session management with authenticated routes
- → Stored user information and hashed passwords on PostgreSQL

Overthnk.me *Deployed*

Gatsby.js, GraphQL, JavaScript (ES6), React, React DOM

- → Created using Gatsby boilerplate for describing personal pursuits

Skills

Programming Languages
JavaScript (ES6), TypeScript, HTML, CSS, Python

Libraries & Frameworks
React, Gatsby, Node.js, Express

Tools & Platforms Used
Git, Webpack, Netlify, Heroku, Firebase

Engineering Design & Tools
Rapid Prototyping, Mechanical Design, Product Development, Design Controls, 3D Printing, Process Validation, Regulations (21 CFR 820, QSR, cGMP, ISO 13485)

Certifications

Zero To Mastery Academy
Complete Python Developer in 2021
Finished in Oct 2020

Complete Web Developer in 2021
Finished in Feb 2021

JavaScript: The Advanced Concepts
Finished in Feb 2021

TypeScript Concepts
In-Progress

Complete React Developer in 2021
Finished in April 2021

Complete Machine Learning and Data Science
Finished in Nov 2020

Complete Node.js Developer
In-Progress

Education

New Jersey Institute of Technology
Bachelor of Science in Biomedical Engineering
2013 – 2017 | Newark, NJ

Master of Science in Biomedical Engineering
2017 – 2018 | Newark, NJ

About Me

Hobbies: 3D Printing, Hiking, Reading, Writing, Baseball, Motorcycles
Languages: English, Spanish