

Colin McIntyre

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TECHNICAL SKILLS

Languages: Python, JavaScript, HTML, CSS, Matlab, SQL (Postgres), NoSQL (MongoDB), Bash

Frameworks: React, Node.js, Django, Express.js, Redux, React Router

Developer Tools: Linux, Windows, Git, GitHub, Google Cloud Platform, VS Code, Pipenv, Asana

CAD Software: SolidWorks, AutoCad, Fusion 360, ANSYS Mechanical

EXPERIENCE

Mechanical Design Engineer

Oct. 2021 – Aug. 2022

Ayoub & Peery | Wet Side Mechanical Contractor

San Francisco, CA

- Drafted hi-fidelity technical drawings of plumbing plans in commercial buildings
- Designed creative solutions for complex building layouts
- Interfaced with the permitting authority of San Francisco and SFO airport for plan approval
- Implemented job-start forms to streamline finding relevant data across jobs which reduced project time by 10%
- Developed a VLISP function that replaced lines drawn by the user with sprinkler heads inserted at the lines midpoint which increased engineering efficiency by 5%
- Worked closely with team leads and Project Managers on large-scale projects

Junior Product Design Engineer

Mar. 2020 – Jan. 2021

Hygenkey | B2B Health Focused Start-Up

Morgantown, WV

- Worked on development team to rapidly prototype designs using additive manufacturing methods
- Performed product research and testing to optimize design prior to manufacturing at scale
- Coordinated with manufacturers to optimize the design so it could be machined 15% faster

PROJECTS

Productivity App | *React, JavaScript, Django, Python, Postgres, CSS*

May 2022 – Present

- Developing a fullstack web application using React and Django to allow users to work collaboratively and have a visual form of accountability to help with productivity
- Built the backend using the Django ORM and Python for data manipulation and used Javascript fetch and React use State protocols for data transfer and assignment in the frontend
- Implemented components to reduce the amount of repeated code
- Used modern CSS techniques like grid, flexbox, and animations, to wireframe and layout the content of the site

Covid Data Tracker | *Repo* | *Python, Django, SQL (Postgres), Git*

May 2022 – Present

- Created a web application using the Django framework which allows users to create, save, and edit charts that display user specified information about the COVID-19 pandemic
- Hosted on Heroku servers and powered by PostgreSQL

Human Powered Vehicle Capstone | *Team Lead*

Jan. 2021 – May 2021

- Developed Matlab code to find optimum parameters (wheelbase, center of gravity, head tube angle) for the vehicle
- Designed the role cage and frame in Solidworks to the Matlab specifications using a comprehensive 3D sketch as the base and creating individual components from the sketch
- Implemented an Agile workflow which allowed the team to be responsive to changes in design parameters and improve collaboration among team members

EDUCATION

West Virginia University

Morgantown, WV

Bachelor of Science in Mechanical Engineering, Minor in Spanish GPA: 3.42

Aug. 2017 – May 2021

Honors: Engineering Excellence Scholarship (merit-based scholarship)
Scholarship of Distinction (merit-based scholarship)

Relevant Courses: Analysis of Engineering Systems (Linear Algebra), Automatic Controls (PI & PD controllers)
Robotic Manipulators, Calculus I-V, Advanced Mechatronics, CAD/Finite Element Analysis
Manufacturing Processes, Machine Design and Dynamics, Aerodynamics

AWARDS

Eagle Scout – Boy Scouts of America

Dean's List – West Virginia University