108 Erica Drive Georgetown, KY

# **BRENNEN GREEN**

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#### **EDUCATION**

Lexington, KY University of Kentucky

Aug. 2019 - Dec. 2022

- Major: Electrical Engineering, B.S. (GPA: 4.0)
- Coursework: Programming in C/C++ (Introduction and Project Design) and Java

#### **SKILLS**

• **Technical:** Nanoindentation, Wet Lab, JavaScript, Python, PHP, Linux, MacOS, Go / GoLang, HTML / CSS, Git, Java, Data Visualization, Data Pipelines, Systems Design, C / C++, Web Design Fundamentals

#### **EMPLOYMENT**

## **Software Engineer**

# **University of Kentucky**

May 2019 – Oct. 2019

Department of Communication (comm.uky.edu)

- Improved faculty data comprehension by creating a data visualization web app in PHP, JavaScript and SQL
- Created stunning visualizations in Tableau to demonstrate the power of the software to staff members
- Automated job search process by using Python to parse new applicants, saving 2 hours daily
- Integrated Docker into applications department wide while co leading a project to revitalize department dev ops
- <u>Leveraged Knowledge</u> of MVC Architecture, Web Debugging, Docker, Dev Ops

### **Bioinformatics Research Assistant**

## **University of Kentucky**

Aug. 2018 – Dec. 2018

- Reduced dependency on legacy-based platforms by integrating Linux Fedora 28 into the lab infrastructure
- Spearheaded the development of a python implementation of the open source software "BioFabric"
- Used Python to analyze sample genome datasets and visualize them using BioFabric
- <u>Leveraged Knowledge</u> of System Design, Data Science, Debugging, and Visualization.

#### **EXTRA-CURRICULAR**

## **UK Solar Car Team – Electrical Team Member:**

- Revision and design of important circuit boards using Eagle PCB Design software
- Researched Li-Ion battery design and chemistry to help the team make the best decision to power our car
- **Future projects:** Designing the electrical system of our new car, Gato del Sol VII. Designing a sustainable solar powered trailer to pull our car to events

# Energy Conversion/Storage Research Lab (Li-ion / Na-ion Batteries):

Supervisor: Dr. Y.T. Cheng

- Construction of li-ion batteries from raw materials
- Use of lab equipment/methods such as nanoindentation to judge mechanical properties of possible electrolytes
- Use of programming abilities to assist with material characterization and lab experiments
- Currently assisting a graduate student researching mechanical properties of Sodium Ion Battery Cells

#### PERSONAL SOFTWARE PROJECTS

## GoList (Craigslist Web Scraper in Go): https://github.com/brennengreen/golist

- Implemented a web scraper that scrapes posting data from a craigslist category
- Used Golang's PostgreSQL implementation to categorize all postings in a SQL database
- Maintained an active server for utilizing the web scraper and database using Heroku
- Used Twilio to notify me whenever an item is posted for less than the average price of similar items
- Utilized: Algorithms, SQL / PostgreSQL, Databases, Heroku, Twilio, Go / GoLang, and Web Scraping

## Ditto (Discord Media Bot Written in Python): https://github.com/ditto-dev-team/ditto

- Used Python to design the backend to safely access the bot's file structure and store/access media files
- Used Heroku to properly sense when the bot is in use as to save time and money when hosting the bot
- Administrated the version control over the bot to promote proper and safe collaboration amongst the team
- <u>Utilized:</u> UNIX File System, Python, Heroku, Git Version Control, Project Management