Katerina Kossler

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TECHNOLOGIES

- **Languages:** Python, Javascript, MATLAB, SQL
- **Frameworks & Libraries:** React, SQLAlchemy, Flask, JQuery, Babel, React Router, Chart.js, Bootstrap, Altair, Pandas
- **Database & Industry Tools:** MySQL, PostgreSQL, Jupyter Notebooks, Excel, AWS Lightsail, Agile
- **Software:** LIMS, Benchling, JMP, LaTeX, COMSOL
- **Automation:** AutoPal, Tecan Evo & Bravo Liquid Handling Machines, M1000 & Spark Plate Readers

PROJECTS

Hiking Habit (hiking-habit.com) Feb – Mar 2020

- A single-page web app built using a **PostgreSQL** database, **Flask** app server, and a **React** front end
- Interactions with the Flask server are completed using **JQuery**, **React JSX** code is compiled into Javascript using **Babel**, routing is managed by **React Router**, local trail data is queried from REI's The Hiking Project API, progress is charted using **Chart.js**, and alerts are managed with **AlertifyJS**
- In this application, users can register, find local trails in their area based on search attributes, save trails to hike on, give reviews of completed hikes, and monitor their progress towards hiking goals
- Project was scoped, designed, implemented, and polished over two one-month long sprints and was deployed using **AWS Lightsail**

WORK EXPERIENCE

Zymergen: Research Associate I/II – Test Development May 2018 – Present

- Designed and built a Python tool in **Jupyter Notebooks** that automated outlier detection of data sets using **Pandas** to reduce analysis time by 1 hour per week
- Scoped and released a graph generation script using **Altair** to reduce weekly analysis time by 3 hours
- Pulled data and troubleshot data management using an in-house **MySQL** database and SQL queries
- Partner with the data management solutions team to solve process modeling tickets in **Agile** sprints
- Developed high-throughput production processes for testing engineered bacterial strains through complex experiments that leveraged an internal LIMS, internal tools, and automation equipment
- Analyzed data using **JMP** Statistical Software & **Excel** to determine significant process improvements & improved candidate strains
- Partnered with internal stakeholders to ensure delivery of a reliable testing process and platform

EDUCATION

HackBright Academy (San Francisco, Ca) Oct 2019 – Apr 2020

- **Relevant Topics:** Data Structures, Sorting, Object Oriented Programming, Runtime Complexity

B.S. Chemical Engineering - University of California, Berkeley Aug 2014 – May 2018

- **Relevant Course:** Python Fundamentals for Data Science, Computational Methods in Chemical Engineering (COMSOL)

ACTIVITIES / INTERESTS

On weekends, you can find me backpacking in a state park, reading a novel by Haruki Murakami or Celeste Ng, grabbing a pint at a local brewery like Novel or Fieldworks, or playing board games like Sushi Go Party! or Hanabi.