

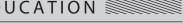
### CONTACT





mary.breenlyles@gmail.com

## **EDUCATION**



### M.S. MECHANICAL ENGINEERING

Northern Illinois University

August 2019 (GPA: 3.9)

- Thesis publication 2019

### **B.S. PHYSICS**

Beloit College

May 2017 (GPA: 3.9)

- Walter S. Haven Physics Prize 2017
- Departmental Honors 2017
- Presidential Scholarship 2014-2017

# VOLUNTEERING



### **Food Distributor**

Volunteer food and donation transport 3-4 days a week for The Love Fridge Chicago mutual aid group

### Farm Worker

Volunteer farm and construction labor at Urban Growers Collective 2 days a week Spring - Fall

### **Neighborhood Point Person**

Assist with coordination, communication, and donation transport for Lakeview Mutual Aid

## SKILLS

<u>-</u>	
Ruby on Rails	Python
GraphQL	Java
Celery, RabbitMQ	PHP
Redis	ReactJS
ElasticSearch	jQuery
MySQL, Postgres	Git
Test Driven Development	Postmar
API construction/consumption	Jira
Project Estimation	VS Code
Client Communication	CircleCl

**Patience** 

Windows/MacOS/Linux

# Mary Elizabeth Breen-Lyles

PROGRAMMER - ENGINEER - CARTOONIST

### SUMMARY

Fast-learning, critically-thinking, conscientious worker with design and programming experience from a broad set of research and web development projects. Lover of people, sincere communication, math, problem-solving, and peanut butter. Genuine enthusiasm for learning and growth!

### WORK EXPERIENCE



# **Software Engineer,** Fooda, Inc.

Chicago, IL (March 2020 - October 2020)

- ► Full stack development for a scalable, distributed e-commerce and scheduling management platform used by customers, restaurant partners, and internal team members
- ► Provided immediate value debugging and adding features to an existing monolith application, writing unit tests and documentation, and participating in code reviews
- ► Collaborated with designers and engineers to build APIs, web services and UIs, using a CI/CD and agile development methodology with a focus on test-driven development
- ► Primary contributions included: refactoring an ElasticSearch index and searchkick model to use a repository pattern; adapting and constructing GraphQL endpoints; writing migrations for a Postgres database; updating and refactoring components in a React frontend utilizing hooks; deploying code to a production server on a rotating schedule
- Patiently and efficiently formulated complete, tested solutions, while avoiding building onto or implementing band-aid fixes



# Freelance Software Developer, Self

Chicago, IL (July 2019 - February 2020)

- ► Independently built web tools and applications for clients, communicating effectively and amicably to maintain positive client relationships
- Drew up thorough design documents and estimates, delivering on time and within budget
- ► Created 2 mobile responsive front end web tools in PHP and JavaScript leveraging Amazon's Product Advertising API and integrated into the existing customer site
- ► Built an extensible Amazon web scraper with Selenium for harvesting product data at managed intervals, and storing results and comprehensive logs in ElasticSearch; Utilized Celery with Redis for parallel processing and data buffering, and included extensive exception handling to precisely identify potential issues

### 2018

### **Graduate Research Assistant, Northern Illinois University**

DeKalb, IL (January 2018 - August 2019)

- ► Executed dynamic molecular computations across distributed systems, applying Tcl and Python scripting to analyze output data, and publishing a thesis paper on the process/results
- ► Compiled LAMMPS from C++ source code with MAKE, using Linux as both development and runtime environment
- Ancillary use of a remote Linux HPC cluster for simulation processing
- ► Quickly learned an assortment of MD simulation/visualization software, with Tcl/Python3 scripts and Excel for data analysis and acquisition

### 2017

# **Research Assistant,** Beloit College

Beloit, WI (August 2016 - May 2017)

- ► Repaired proton accelerator via machining and configurational planning for new/existing
- ► Extensive work on electromagnet (fix cooling system, field tuning, Faraday cup implementation, electrical load and bending angle calculations, development of predictive models)