

## Education

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**Drexel University**

Philadelphia, PA

**Bachelor of Science in Chemical Engineering**

- Cumulative GPA - 3.75
- Awarded the A.J. Drexel Scholarship for the academic years 2018 - 2021
- Received the Dean's List Award for my 9 academic terms from 2018 - 2021

## Programming & Technical Skills

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**Languages:** Python, Java, JavaScript/HTML/CSS, Bash, SQL, MATLAB**Frameworks & Libraries:** React, JQuery, Django, pytest, Bootstrap, Pandas, NumPy**Tools:** Git, Linux, npm**IDEs:** Visual Studio Code, Pycharm, IntelliJ, Eclipse, Jupyter Notebook

## Work Experience

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**Drexel University**

Philadelphia, PA

**Research Assistant (Python, pytest)**

January 2020 - May 2021

- Implemented a stock-driven dynamic material flow assessment to predict future waste production from solar panels
- Created unit tests cases to test and debug the complex algorithm to ensure it meets the model's requirements
- Wrote a supporting information document tailored to a non-technical audience or researchers, guiding them on the algorithm and how to run the model in Jupyter Notebook.

**Philadelphia Water Department**

Philadelphia, PA

**Laboratory Assistant Co-op**

October 2018 - March 2019

- Communicated and collaborated effectively with lab technicians to complete timely tasks with limited equipment.
- Took ownership of chain of custody sheets for industrial waste test samples entering the plant.

## Projects

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**BDO Tracker****Web Developer (Django, HTML, CSS JavaScript, MySQL)**

August 2021 – September 2021

- Built a website to help users optimize their daily income by tracking the most profitable items for various activities
- Provided users updated item information by producing a scheduled python script that updates the database every 16 minutes from a POST API request.
- Hosted at: <http://da593.pythonanywhere.com/marketplaceapp/home>

**Binary Distillation Solver****Web Developer (HTML, CSS JavaScript, React)**

October 2021 – October 2021

- Built an interactive website that solves for the number of stages required for a binary distillation column
- Utilized plotly graphing library to plot the McCabe-Thiele graphical method that changes based on user input
- Hosted at: <https://da593.github.io/ReactBinary/>

**Interactive Calculator**

Drexel University

**Software Engineer (Java)**

February 2021 – February 2021

- Designed and implemented an interactive calculator with a GUI using Java AWT package
- Utilized a client-server model, visitor pattern, state pattern, and model-view-controller architecture to optimize performance, manageability, and quality of the code

**FlappyBlock**

Drexel University

**Project Manager and Lead Developer (MATLAB)**

January 2018 - March 2018

- A MATLAB side-scrolling game with keyboard input, scoreboard, and collision detection inspired by FlappyBird
- Organized and lead team meetings, finishing the project ahead of the 10 week schedule by two weeks