EXPERIENCE

**MAterials Simulation Toolkit Machine Learning (MAST-ML)** Madison**,** WI

*Member* June 2020 – Present

MAST-ML is an open-source machine learning Python package with a focus on the material sciences. Contributing to the tool by implementing various functionality proposed by supervisor Dr. Ryan Jacobs. Tasks include:

* Data-twin removal to help improve model performance (**Python**).
* Graphs to summarize classification models (**Python**).
* Exploration of gp-learn library and other feature generation methods (**Python**).

**Halo Science** Chicago**,** IL

*Developer Intern* May 2021 – August 2021

Halo is a startup focused on pairing researchers to various funding sources. Contributed by implementing features and designs at the direction of the CEO or UX designer and fixing bugs. Other highlights:

* Setup tools to increase developer productivity and adherence to component-driven development (**Storybook**, **Chromatic**).
* Developed a new component library to reduce redundancy of code (**React**, **styled-components**).
* Wrote web scraping Python scripts to aid the marketing team (**Python**).

EDUCATION

**University of Wisconsin-Madison** Madison, WI

*B.S. Major in Computer Science | B.S. Major in Data Science* August 2019 – December 2022 (expected)

*Major GPA: 3.95 | Cumulative GPA: 3.75 | Dean’s List 3 semesters*

* *Relevant Completed Coursework:* Advanced Programming in Java; Discrete Mathematics; Computer Engineering; Applied Statistics for Engineers; Introduction to Artificial Intelligence; Machine Organization and Programming; Introduction to Operating Systems; Introduction to Algorithms; Introduction to Data Modeling; Software Engineering; Introduction to Human-Computer Interaction; Introduction to Computer Networks; Introduction to Data Modeling II; Introduction to Bioinformatics
* *Current Coursework:* Matrix Methods in Machine Learning; Data Science Programming II; Computer Graphics; Statistical Experimental Design

SKILLS AND INTERESTS

**Programming**: Java, Python, JavaScript, HTML, CSS, C, R

**Technologies**: React, Node.js, Jekyll, Git (CLI), Storybook & Chromatic, LaTeX, Tableau

PROJECTS

Projects selected to show a variety of project topics and programming languages. Check out more on my [website](https://www.averychan.site/) or [GitHub](https://github.com/Avery2).

* [**Personal Website**](https://github.com/Avery2/Avery2.github.io)**:** Set up my website using Jekyll and wrote Python scripts to scrape GitHub **(Jekyll, Liquid, Python)**.
* [**Steam Hours**](https://github.com/Avery2/steam-hours)**:** Created scripts to interact with the Steam API and analyzed data with R **(Python, R)**.
* [**Handwritten Digit Classifier**](https://github.com/Avery2/Backpropagation-Neural-Network)**:** Created a neural network from scratch to learn how neural networks work **(Java)**.
* [**Just-Read-Less-Features**](https://github.com/Avery2/Just-Read-Less-Features)**:** Forked a chrome extension that standardizes the styling of online articles for daily use **(JavaScript)**.
* [**Work Visualization**](https://github.com/Avery2/PersonalVisualization)**:** Visualized a year of self-reported data on where I spent my time working **(R, D3.js)**.
* [**Lightbulb**](https://issuu.com/transcenduw/docs/2021_booklet)**:** Created a tool to connect people of different talents looking to work on projects. Competed in 2021 Transcend Competition **(React, Node.js, Express)**.
* [**Antibiotic Visualization**](https://github.com/Avery2/Antibiotic-Visualization)**:** Made a static visualization that effectively communicates antibiotics data. **(R, Tableau, Figma)**.

EXTRACURRICULAR ACTIVITIES

* **Co-Leader, FoodShed (Coding for Good):** Created an app for the campus club FoodShed that collects free (surplus) food (**Typescript, Angular, Ionic**).
* **Member, Causal Architecture (AI Club):** Learned a theoretical approach to artificial intelligence by reading research papers.
* **Member, Coding for Good Website:** Contributed to the Coding for Good website (**EJS, JavaScript, HTML**).
* **Founding Member, Free and Open-Source Software (FOSS) Club:** Helped to start the UW-FOSS club by facilitating general logistics (email and meetings) and developing the website with the founder.