# Justin "Avery" Chan

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### **EXPERIENCE**

# **MAterials Simulation Toolkit Machine Learning (MAST-ML)**

Member

Madison, WI 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

May 2021 – August 2021

Developer Intern

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

Major GPA: 3.95 | Cumulative GPA: 3.71 | Dean's List 2 semesters

August 2019 - May 2022 (expected)

- 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
- Current Coursework: Software Engineering; Introduction to Human-Computer Interaction; Introduction to Computer Networks; Genetics in the News; Introduction to Data Modeling II

#### SKILLS AND INTERESTS

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

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

Interests: Productivity Software, Reading, Running

#### **PROJECTS**

Projects selected to show a variety of project topics and programming languages. Check out more on my website or GitHub.

- **Lightbulb:** Created a tool to connect people of different talents looking to work on projects. Competed in 2021 Transcend Competition (React, Node.js, Express).
- Personal Website: Set up my website using Jekyll and wrote python scripts to scrape GitHub (Jekyll, Liquid, Python).
- Blindwrite Clone: Created a web app that helps users avoid constant self-editing (plain HTML, CSS, JavaScript).
- Steam Hours: Created scripts to interact with the Steam API and analyzed data with R (Python, R).
- Handwritten Digit Classifier: Created a neural network from scratch to learn how neural networks work (Java).
- Spotify Data Analysis: Analyzed and reported on Spotify song data from Kaggle (R).
- Just-Read-Less-Features: Forked a chrome extension that standardizes the styling of online articles for daily use (JavaScript).

# **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 (Al Club): Learned about 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).