Justin “Avery” Chan

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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**).
- Support for various graphs for 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 and UX designer and fixing bugs. Other highlights below:

- Setup the Storybook and Chromatic software tools to help frontend development and to encourage adherence to component-driven design (**Storybook**, **Chromatic**).
- Developed a new consolidated component library to reduce redundancy of code (**React**, **styled-components**).
- Wrote web scraping python scripts to aid marketing team (**Python**).

EDUCATION

University of Wisconsin-Madison Madison, WI
B.S. Major in Computer Science | *B.S. Major in Data Science* August 2019 – May 2022 (expected)
Major GPA: 3.95 | Cumulative GPA: 3.71

- *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

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

Technologies: React, Node.js, Jekyll, Git (CLI), Storybook & Chromatic, scikit-learn, tidyverse

PROJECTS

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

- **Lightbulb:** Created a collaboration tool to connect people looking to work on projects. Competed in 2021 Transcend Competition **(React, Node.js, Express).**
- **Personal Website:** Set up a personal website using Jekyll, a tool to build lightweight static web pages. Created python script to scrape GitHub information **(Jekyll, Liquid, Python).**
- **Blindwrite Clone:** Created an online web app that allows users to blur their writing to avoid constant self-editing and hopefully avoid writers block **(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).**

EXTRACURRICULAR ACTIVITIES

- **Co-Leader, FoodShed (Coding for Good):** Created an app for the campus club FoodShed that collects free (surplus) food. Built with Ionic and Angular (**Typescript, Angular, Ionic**).
- **Member, Causal Architecture (AI Club):** Learned a theoretical approach of natural and artificial intelligence by reading research papers.
- **Member, Coding for Good Website:** Contribute to the website for the Coding for Good club (**EJS, JavaScript, HTML**).