HANNAH K CHANG

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Education

University of Michigan, College of Engineering — **Ann Arbor, MI**

Bachelor of Science in Engineering in Computer Science, GPA: 3.7 — *May 2024*

Coursework: Data Structures and Algorithms, Computer Organization, Machine Learning, Artificial Intelligence, Web Systems, Autonomous Robotics, Linear Algebra, Statistics and Probability, Discrete Math, Calculus (I, II, III)

Experience

Chewy — **Boston, Massachusetts**

Software Engineering Intern – New Verticals Expansion to Canada Team — *June 2023 – August 2023*

- Utilized Typescript, HTML, CSS, Vue, and Jenkins to deploy and update front-end components, enhance user interfaces, address front-end bug issues, and build out changes on 10 single-page web applications on Chewy's Canadian site.
- Implemented accessibility features, including screen reader compatibility and informative error messages, and regional features, such as language localization and currency conversions, to improve user experience and templatize code.
- Performed snapshot, unit, local, and Storybook testing to build and test backend and user interface components.

DocuSign — **Seattle, Washington (Remote)**

Software Engineering Intern – Search Infrastructure Team — *June 2022 – September 2022*

- Designed and implemented an end-to-end demo using Elasticsearch for an "update-as-you-type" result suggestion feature, which served as a centralized suggestion feature that seamlessly searched across multiple DocuSign services.
- Worked on search feature API, fixed user and backend bugs, and improved test coverage using mock unit testing.
- Created design document using user requirements and inverted indices information and pitched document to inform engineers on how to integrate project into search services.

University of Michigan, College of Engineering — **Ann Arbor, MI**

Teaching Assistant, Elementary Programming Principles — *August 2022 – December 2022*

- Led weekly lab sessions to reinforce students' understanding of C++ programming principles.
- Held weekly office hours to aid students with course material, projects, and lab assignments.
- Aided in grading and administering exams, answering student questions, and organizing class-wide events.

Extracurricular Activities and Projects

University of Michigan, Society of Women Engineers — **Ann Arbor, MI**

Public Relations' College Relations Co-Officer / Community Relations Co-Officer — *May 2021 – Present*

- Organize multiple university-wide charity fundraising events, raising $3220+ in funds and supplies for 5 local charities, and hosted smaller events with engineering organizations to enhance chapter recognition on campus.
- Collaborate with co-officer to manage a subcommittee of 20+ volunteers, coordinating event logistics, advertising, and sponsorships. Help in planning and conducting weekly seminars and volunteering in STEM education programs for kids.

Instagram Emulator — **February 2023**

- Developed a functional web application, with client-side dynamic pages, to emulate the functionality of Instagram. Application was built with React for front-end, Flask for backend, SQLite for database, and deployed to AWS.

Map Reduce Framework — **March 2023**

- Implemented a multi-worker, fault-tolerant MapReduce framework in Python to process large datasets in parallel. Utilized fundamental distributed systems principles including threads, processes, sockets, and UDP and TCP protocols.

Dog Breed Classifier — **November 2022**

- Designed and developed the architecture, using PyTorch, for a convolutional neural network to classify dog images by breed. Employed techniques including feature selection, hyperparameter tuning, transfer learning, and data augmentation to train model. Performed training and validation on model to achieve over 0.9 AUROC score.

Programming Skills

Languages: C++, C, Python, Java, JavaScript, HTML/CSS

***Frameworks/Tools/Other*:** Elasticsearch, Moq Unit Testing, REST API, Shell Scripting, Flask, React, Jenkins, Cypress, PyTest