

# HANCHI ZHANG

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## 🎓 EDUCATION

**University of Michigan**, Ann Arbor, MI

Expected May 2021

B.S.E. in Computer Science & Data Science

GPA 3.75/4.00

**Relevant coursework:** EECS 482 (Intro to Operating System) / EECS 491 (Intro to Distributed System) / EECS 381 (Object Oriented and Advanced Programming) / EECS 484 (Database Management System)

## 👥 EXPERIENCE

**University of Michigan Systems Lab** Ann Arbor, MI

Apr. 2019 - Present

*Research Assistant, advised by Prof. Michael Cafarella* Python / pytorch

- Utilized Python and pyTorch to implement a video database to optimize user-provided pre-trained machine learning model's querying time of per-frame data by building 1.3 million cascades of 360 simple convolutional neural networks
- Achieved an optimization of speeding up user querying time by 7 times with 93% accuracy comparing to naive solution
- Processed 4GB of highly noisy csv files to train and fine-tune multiple LSTM classifiers that achieved 75% near accuracy

**Chemical Engineering at University of Michigan** Ann Arbor, MI

Apr. 2019 – Present

*Websites Manager* HTML / CSS / javascript / React

- Refactored legacy pages by converting pure HTML pages to React components and utilized emotion.sh to improve styling
- Separated contents from styling by storing contents on local json files and enabled easier modification of website contents
- Set up webpack / babel hooks to bundle javascript files and embed them into original pages to achieve automatic updates

*Checkout the websites* <http://umich.edu/~elements/5e/index.html> and <http://umich.edu/~safeche/>

**Perch Research** Ann Arbor, MI

Dec. 2018 – Present

*Frontend Developer* HTML / CSS / javascript / React / Redux

- Developed platform responsive frontend pages and components utilizing React / Redux and media query function of CSS
- Adapted to React Hooks API to restructure components declared as classes to functions with useState / useEffect to avoid complex syntactic characteristics of JavaScript class and achieve better code readability and reusability
- Utilized Youtube API to build a component that enables user to upload and display introductory video with polling support

**Xiaomi Technology** Beijing, China

Jun. 2018 – Aug. 2018

*Software Development Intern* Python / Java

- Developed a multi-activity Android app demo providing intelligent sketch of MIUI users' daily behaviors e.g. app usage
- Set up a simulated backend and API endpoint to serve dummy data to the app using Python and flask and store login info

## 🔧 PROJECTS

**U of M Blue Bus Time Checker** Python / pyQuery / AWS

Feb. 2019

- Developed the backend of an Alexa skill that informs user the time of the next bus and the time to walk to the closest stop
- Built an API endpoint that uses Google Matrix APIs and scraped data from the blue bus website to provide correct info
- Utilized a python library Chalice to deploy the backend service as a stateless function to AWS Lambda

**Multithreaded Library / Disk Scheduler** C++

Jan. 2019 – Feb. 2019

- Implemented a thread library utilizing linux system infrastructures including context and atomic that supports multi-threading across multiple simulated CPU cores including interface for mutex and condition queue
- Implemented a disk scheduler program that reads a series of input representing the track number of disk requests that will be executed synchronously by a disk servicer

## ⚙️ SKILLS

- Programming Languages: C++, C, Python, HTML, CSS, javascript, Java, SQL,  $\LaTeX$ , Go
- Tools & Framework: Git, Bash, PyTorch, React, Node.js, jQuery