

# Richard Ma

COMPUTER SCIENCE STUDENT

Greater Chicago Area

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## Experience

### Capital One

SOFTWARE ENGINEER INTERN

McLean, Virginia

Jun. 2021 - Aug. 2021

- Worked in Meisters Anti-Money Laundering Team with two other interns
- Tested models by writing functional and unit tests in python to meet 80% test coverage
- Designed dataframes using Jupyter Notebook and verified the correctness of each function using mocker
- Formatted and linted existing codebase using pylint to meet company standards
- Attended tech workshops and participated in a agile work environment, backlogging issues to Jira

### Synchem Inc.

WEBMASTER

Elk Grove Village, IL

May. 2018 - Aug. 2018

- Worked on a new version of the site in Django
- Configured DNS to help deploy new company website to DigitalOcean
- Improved company search engine visibility by installing SSL Certificate and Google Ads
- Added new company products to database in order to display for sale
- Created new employee accounts using Active Directory, troubleshooted networking problems

## Education

### University of Illinois, Urbana Champaign

B.S. IN COMPUTER SCIENCE

Champaign, IL

Aug 2020 - Present

- Planning to graduate by May of 2023
- GPA: 3.9 / 4.0
- Notable coursework: CS 374 (Algorithms), CS 225 (Data Structures), ECE 408 (Applied Parallel Programming), MATH 415 (Linear Algebra)
- Extracurriculars: ICPC (competitive programming), SigPWNy (cybersecurity club), tennis

## Projects

### Rank to Performance

[HTTPS://REIGENATK.GITHUB.IO/RANKTOPPV1/](https://reigenatk.github.io/ranktoppv1/)

- A fullstack MERN application (MongoDB, Express, React, Node) that tracks global rankings in a free rhythm game called 'osu!'
- Uses ExpressJS to make a backend which exposes endpoints to query info
- Uses Axios, cron, and asynchronous Javascript to make calls to an official game API daily
- Data stored in a MongoDB database, and displayed on a frontend using ChartJS

### IMDB Dataset Analysis

[HTTPS://GITHUB.COM/REIGENATK/IMDB-DATASET](https://github.com/reigenatk/imdb-dataset)

- An analysis of the public data available on IMDB.com, a movie ranking website, in C++
- Constructed a large graph with millions of data points and ran floodfill, SCC, and closest path algorithms to learn more about the data
- Debunked the Six Degrees of Kevin Bacon Theory

### Reaction Wars

[HTTPS://REACTIONWARSV1.HEROKUAPP.COM/](https://reactionwarsv1.herokuapp.com/)

- A real-time, 1v1 reaction time game written in Javascript
- Leveraged JQuery and the Socket.IO library to enable real time communication between two clients
- Implemented functionality for multiple rooms to be playing at once

## Skills

**Proficient,** C++

**Familiar,** Python, Javascript, ReactJS, NodeJS, MongoDB, HTML/CSS, C#

**Learning,** Java, Bash, C, x86 Assembly, CUDA, Django, Typescript