

Michael Ma

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Education

The University of Illinois at Urbana-Champaign

December 2023

B.S in Computer Science

GPA: 3.7/4.0

Experience

Basis Technologies, Chicago IL — Software Engineer

(January 2024 - Present)

- Working on creating automated regression tests

Nokia Corporation, Naperville IL — Software Engineering Co-op

(September 2023 - Dec 2023)

- Worked on internal search engine and optimized to use machine learning and NLP

Basis Technologies, Chicago IL — Software Engineering Intern

(June 2023 - August 2023)

- Worked on QA Test Automation team
- Improved internal testing tool to automate log checking for errors/warnings for components
- Created automated regression tests for multiple components

Lockstep, Seattle WA — Software Engineering Intern

(January 2022 - August 2022)

- Worked on implementing and optimizing inputting new API calls into Azure Table Storage
- Improved the Xero and QBO connectors by adding sync functionality.
- Worked on a team of two to build a MVP of a connector to Netsuite to sync data from Netsuite and insert it into Lockstep SQL tables.

University of Illinois at Urbana Champaign, Urbana IL – Course Assistant

- CS222: Software Design Lab (January 2022 - May 2022) - Mentored a group of 5 students in creating a semester-long project in Java, C++. Attended weekly meetings and graded progress.
- CS225: Data Structures (August 2021 - December 2021) - Held office hours and exam review to help students debug and understand how to resolve issues.
- CS126: Software Design Studio (January 2021 - May 2021) - Held office hours and moderated code review, emphasized writing readable and extendable code. Graded weekly projects.

Nobel Coaching and Tutoring, North Potomac MD – Software Engineering Intern

(May 2019 - August 2019)

- Designed and created an online web game for elementary schoolers to teach soft skills such as teamwork and communication. Used Node.JS, JavaScript, socket.IO to build backend.

Projects

N-Body Simulation (Winter 2021)

- Created a simulation of a galaxy with ~40k stars using an efficient algorithm in loglinear time called Barnes-Hut that uses quadtrees (octree for three dimensional simulations)
- Simulated a black hole and the movements of stars around black hole

Delaunay Triangulations and Voronoi diagrams (Spring 2022)

- Created a program to efficiently triangulate a set of random points in loglinear time using the Bowyer-Watson algorithm.
- Implemented turning the triangulation into a Voronoi diagram in linear time