

# THOMAS GRAHAM FISHER II

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## OBJECTIVE

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As a junior majoring in Computer Science and Honors Mathematics and a participant in Notre Dame's Silicon Valley Semester, I am seeking a part-time internship for the spring semester (January 13 – April 30, 2021) in the Bay Area that will expand and utilize my interest and experience in software development, especially with a focus on mathematics.

## EDUCATION

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**University of Notre Dame (Notre Dame, IN)**

*May 2022*

Bachelor of Science, Computer Science and Honors Mathematics

GPA: 3.98

## SOFTWARE EXPERIENCE

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**Technology Development Program Intern - Optum**

Jun 2020 - Aug 2020

- In a team of 4 interns, built performance testing framework to load test REST services (Scala, Gatling, Maven)
- Containerized app components and deployed into on-premises Kubernetes cluster via Helm (Kubernetes, Helm)
- Automated creation of dashboard report to analyze results and drive development (InfluxDB, Grafana, Jenkins)

**Learning Management Systems Developer - Notre Dame Office of IT**

Sep 2019 - Present

- Refactored previous students' D3.js based web app - added more consistency in 500 fewer lines (JavaScript)
- Created macOS app to concatenate PDFs to streamline Professor's grading process (AppleScript)
- Currently preparing previous students' economics simulation for classroom use (PHP, JS, SQL)

**Computational Methods for Discovery Driven by Big Data REU - U of Minnesota**

Jun 2019 - Aug 2019

- Implemented a novel redirected walking algorithm to allow efficient and natural virtual locomotion in complex physical environments. Processed data in Python; imported and used results in C# algorithms for Unity
- Worked in the Illusioneering Lab under Evan Suma Rosenberg; presented poster at Summer Undergrad Research Expo
- Completed "Big Data Bootcamp" using materials from the Fall 2016 Data 8 course at UC Berkeley (Python)

**2019 Hesburgh Libraries Hackathon**

Mar 2019

- Built a web app with 3 others in a 3-day hackathon to improve student life (jQuery, Bootstrap)
- Awarded Honorable Mention for Napingo, a platform via which users find and share nap spots around campus

**Modularization Project Lead - Robotic Football Club**

Sep 2018 - Aug 2020

- Collaborated with fellow engineers to design, build, program, and repair more than a dozen robots to play football; robots are controlled by club members in a game very similar to American football
- Lead team of 15 to organize and enforce best programming practices on existing robot drive code (Python)

## OTHER EXPERIENCE

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**Honors Calculus I Grader and Tutor - Notre Dame Math Department**

Aug 2020 - Present

- Tutor in the "math bunker," a student-run help room dedicated to proof-based math classes
- Grade weekly assignments for the Honors Calculus I course, a differential calculus class from first principles

**Senior Event Assistant - Notre Dame Student Activities Office**

Sep 2018 - Present

- Prepare for and monitor ongoing student events for audiences up to hundreds of students to ensure their smooth course
- Coordinate shifts, lead small group of 7 coworkers, and serve as first contact for any issues during events

## SERVICE

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Weekly Tutoring at St. Adalbert's Elementary School

Sep 2018 - Present

Northside Ministries Food Pantry and Community Garden Volunteering (200 hours)

Apr 2017 - Apr 2018

## TECHNICAL SKILLS

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*Proficient:* Python, Java, LaTeX, Bash, JavaScript, C, PHP, SQL

*Basic:* C++, Clojure, Scala, Gatling, Docker, Kubernetes, Helm, Jenkins, Arduino, MATLAB, Verilog

## HONORS

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Tau Beta Pi Engineering Honor Society Member (Indiana Gamma Chapter)

Inducted Nov 2020

Honorable Mention - 2019 Hesburgh Libraries Hackathon

Mar 2019

Virginia A. Smith Highest Academic Award (Valedictorian Equivalent)

May 2018