THOMAS GRAHAM FISHER II

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OBJECTIVE

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

EDUCATION

University of Notre Dame (Notre Dame, IN) *May 2022*
Bachelor of Science, Computer Science and Honors Mathematics GPA: 3.98

SOFTWARE EXPERIENCE

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)
· Automating 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 result 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

· Collaborated with 3 others in a 3-day hackathon to build a web app (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 - Present

· Collaborate 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

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

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

Proficient: Python, Java, LaTeX, Verilog, JavaScript, C++
Basic: C, Clojure, Scala, Gatling, Docker, Kubernetes, Helm, Jenkins, PHP, SQL, Arduino, MATLAB

HONORS

Honorable Mention - 2019 Hesburgh Libraries Hackathon Mar 2019
Virginia A. Smith Highest Academic Award (Valedictorian Equivalent) May 2018
National Merit Finalist Feb 2018