IAN DOUGHERTY

COLLEGE STUDENT

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EXECUTIVE SUMMARY

20-year-old computer science major with a background in web development. Moving forward with a focus on algorithm design and application.

EDUCATION

Illinois Institute of Technology
Expected completion of co-terminal program in 05/24:
B.S. Computer Science
M.S. Artificial Intelligence

LANGUAGES & FRAMEWORKS

- MERN Stack
- Ruby on Rails
- JavaScript
- Python
- C#
- Java
- SQL
- Git

STRENGTHS

- Motivated to learn
- Detail oriented
- Strong communicator
- Object oriented design

WORK EXPERIENCE

Full Stack Web Developer
Receptify | Spring of 2022
- Using the MERN stack to create a platform to connect students to Title IX offices and confidential advisors
- Handling a lot of responsibility within a small tech team

OAF Micro-Internship
Open Avenues Foundation | Winter of 2021
- Designed & developed a full-stack personal expense tracker
- Integrated a React front-end and a Ruby back-end

Online Programming Instructor
iD Tech Camps | Summer of 2021
- Taught fundamentals of JavaScript to grade school students
- Lectured for two hour long sessions five days a week
- Designed supplementary material to assist curriculum

PROJECTS (SEE WEBSITE)

2D Rigid Body Physics Engine
JavaScript & HTML5 Canvas
- Uses a multitude of algorithms to efficiently find collisions and produce a contact manifold
- Iterative impulse resolution to support stable simulations
- Packaged into a framework to easily deploy in other projects

Raytracing Engine
C# | .NET Framework
- Supports sphere rendering, multiple materials, and lighting
- Multithreaded to optimize rendering time

Realtime Multiplayer Game Framework
JavaScript using WebSockets in Node.js
- *Implemented server-side architecture from the ground up*
- Supports client-side prediction and server reconciliation
- Serializes data to optimize ping times