Osama Esmail

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EDUCATION

University of Illinois at Urbana-Champaign	Expected Graduation 05/2021

- BS in Computer Science — GPA: 3.92
- BS in Mathematics

EXPERIENCE

Illinois Geometry Lab   01/2019 - 05/2019
Undergraduate Researcher
- Analyzing Champaign County health inspection data to streamline future inspections
- Collaborating to create a machine learning model for the data using TensorFlow

Illinois Rocstar   05/2018 - 08/2018
Software Engineering Intern
- Developed product website front-end using ReactJS, creating new components and overhauling various aspects of the front-end
- Debugged and updated Python Flask back-end, including modifying models, working with NoSQL, and adding new features to be implemented on the front-end

ForNoJo LLC   10/2017 - 12/2017
Android Front-End Developer
- Developed and debugged the Android front-end of a mobile application

America Reads   09/2017 - 12/2017
Tutor
- Help kids in the local Urbana-Champaign schools with their math and reading comprehension.

PROJECTS

Boston Housing Analysis
- Utilized TensorFlow and libraries to create regression models for housing prices in the Boston Area

Optimal Rubik's Cube Solver
- Threaded processes asynchronously in C++ to speed up a Rubik's Cube solver
- Used CUDA to further parallelize the solver

Meetup Marker
- Developed an Android Studio app in Java for spontaneous social events with a friend at HackIllinois.
- Utilized Google Maps API and developed a Python Flask API for the backend.

Schedule Optimizer
- Deployed a ReactJS website (NodeJS backend) with 4 group members for making conflict-free schedules at our university.

CS:GOtcha
- Developed fully functional first-person shooter over Spring 2017 with a friend using Unity3D and various C# & JavaScript scripts.

RELEVANT COURSEWORK

<u>Computer Science:</u> Machine Learning, Systems Programming, Computer Architecture, Numerical Methods, Statistics and Probability, Discrete Structures, Data Structures, Applied Linear Algebra, Intro to Computer Science (Honors)
<u>Mathematics:</u> Abstract Linear Algebra (Honors), Real Analysis (Honors), Fundamental Mathematics (Honors), Differential Equations (Honors)

SKILLS AND INVOLVEMENT

Computer Languages: Python, JavaScript, C++, Java, HTML/CSS3, C#
Frameworks, Libraries and Technologies: TensorFlow, PyTorch, NumPy, Pandas, CUDA, ReactJS, Flask, Git
Student Organizations: SIG AI (Artificial Intelligence), Academic Team, Math Contests Group, Billiards Club
Interests: Chicago Bulls, Chicago White Sox, Green Bay Packers, Trivia, Cooking Shows, Futurama