# Osama Esmail

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#### **EDUCATION**

University of Illinois at Urbana-Champaign

• BS in Computer Science

05/2021

• BS in Mathematics

### **EXPERIENCE**

InnoPeak Technology 07/2021 - Present

Software Development Engineer

- Implemented research and development algorithms for C++ & Android applications
- Parallelized real-time image analysis & object detection algorithms

IMC Trading 06/2020 - 08/2020

**Quantitative Trading Intern** 

Analyzed and simulated block trading strategies and their profits in JupyterLab with Python

Amazon 05/2019 - 08/2019

Software Development Engineering Intern

- Contributed to internal subscriptions API written with Spring Java Framework
- Displayed API contributions in internal tool written in AngularJS

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

### **PROJECTS**

### Crypto Trader

Deployed a cryptocurrency trading bot written in Python with Coinbase Pro's API to Heroku

## 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

## 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.

### SKILLS AND INVOLVEMENT

Computer Languages: Python, JavaScript, C++, Java, HTML/CSS3, C#

Frameworks, Libraries and Technologies: TensorFlow, PyTorch, NumPy, Pandas, CUDA, ReactJS, Flask, Git

Interests: Chicago Bulls, Chicago White Sox, Green Bay Packers, Trivia, Cooking Shows, Futurama