Osama Esmail

osamabinesmail@gmail.com | (847) 834-1796 | 410 E Green St, Apt #514 Champaign, IL 61820
GitHub: /osaesm | **LinkedIn:** /in/osamabinesmail | **Website:** osamaesmail.me

EDUCATION

University of Illinois at Urbana-Champaign   Expected Graduation 05/2021
- BS in Computer Science   GPA: 3.38
- BS in Mathematics

EXPERIENCE

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
- Implemented Coinbase Pro's API into a simple crypto trading bot

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.

RELEVANT COURSEWORK

Computer Science: Algorithms, Applied Linear Algebra, Applied Parallel Programming, Artificial Intelligence, Computer Architecture, Data Structures, Database Systems, Discrete Structures, Numerical Methods, Programming Languages and Compilers, Social Visualization, Statistics and Probability, Systems Programming
Mathematics: Abstract Algebra, Abstract Linear Algebra (Honors), Complex Variables (Honors), Differential Equations (Honors), Elementary Number Theory, Fundamental Mathematics (Honors), Real Analysis (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), Math Contests Group, Starcourse (Concert group)
Interests: Chicago Bulls, Chicago White Sox, Green Bay Packers, Trivia, Cooking Shows, Futurama