

# Osama Esmail

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## Education

University of Illinois at Urbana-Champaign

Expected Graduation 05/2021

- BS in Computer Science
- BS in Mathematics

GPA: 3.89

Niles West High School

05/2017

- 4.2/4.0 GPA

## Current Coursework

Computer Architecture | Numerical Methods I | Statistics and Probability I | Real Analysis (Honors)

## Past Coursework

Computer Science: Intro to Computer Science (Honors), Discrete Structures, Data Structures

Mathematics: Fundamental Mathematics (Honors), Differential Equations (Honors), Applied Linear Algebra

## Experience

05/2018 - 08/2018

### Full Stack Intern, Illinois Rocstar

- Developed product website front-ends using ReactJS
- Debugged and improved Python Flask back-ends

10/2017 - 12/2017

### Android Front-End Developer, ForNoJo LLC

- Develop and debug the Android front-end of a mobile application

09/2017 - 12/2017

### Tutor, America Reads

- Help kids in the local Urbana-Champaign schools with their math and reading comprehension.

## Skills

- Computer Languages (from most experience to least experience):
  - Python, JavaScript, C++, Java, HTML, C#
- Languages:
  - English (native), Spanish (conversational), Urdu (comprehend), Hindi (comprehend), Memoni (comprehend)
- Student Organizations:
  - SIG AI (Artificial Intelligence), Academic Team, Math Contests Group, Billiards Club, Illini Pullers
- Leadership Roles:
  - Captain of high school Math Team, Science Olympiad Team (science competition) and Quiz Bowl (trivia)

## Projects

- 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 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.
- Narc
  - Worked with 4 teammates during a hackathon to make an Android app in Java for sending pictures and locations of handicap parking spot infractions to local law enforcement.
- CS:GOtcha
  - Developed fully functional first-person shooter over Spring 2017 with a friend using Unity3D and various C# & JavaScript scripts.