

# Alemayehu Bogale

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## Education:

University of Chicago  
Class of 2020  
B.S in Computer Science and Physics

Whitney M. Young Magnet High School  
Class of 2016

## Relevant Courses:

**Computer Science:**  
Networks, Distributed Systems, Computer Systems  
**Physics:**  
Quantum Mechanics, Classical Mechanics, EM

## Skills:

**Languages:**  
Python, C, Javascript, HTML, CSS  
**Tools & Frameworks:**  
NumPy, SciPy, Pandas, GIT, GDB, Valgrind, Proxy  
**Systems:** Linux, OSX

## Experience

### FLASH Computational Physics Lab, Research Assistant | Chicago, IL | June 2017 - Present

- + Built and maintained a Python based Proton Radiography Reconstruction tool for experimental purposes
- + Edited Professors code for experimental purposes based on paper that can be found: <https://arxiv.org/pdf/1603.08617v1.pdf>
- + Plotted reconstructed magnetic fields using scientific computing packages in python
- + Documented use and installation of code thoroughly
- + Presented side-by-side modifications of the code to an audience of professional and postdoctoral researchers

### Google Computer Science Summer Institute, Student | Chicago, IL | June 2016 - August 2016

- + Participated in an intensive programming institute, learning web-app development in HTML, CSS, JavaScript, Python and Google App Engine from Google engineers
- + Through the creation of various small projects, my group of 3 people, used HTML, CSS, JavaScript and Python to create an alarm application (<https://energize-1470337688774.appspot.com/>) and presented it to an audience of Google engineers.

### Fermi National Accelerator Laboratory, Intern | Batavia, IL | June 2015 - August 2015

- + Designed web pages using Microsoft Sharepoint, WordPress, and Drupal for the Feynman Computing Center
- + Constructed various electronics including radios and batteries
- + Programmed simple robots and trained in AutoCad Design

## Activities/Leadership

### FEMMES, Community Outreach Director | Present

- + Led outreach to schools in the Chicago School Public System to recruit girls for our workshops and events
- + Taught a 7 week workshop that introduced middle school girls at Kenwood Academy to computer science

### Refugee Relief Club, President | 2013 - 2016

- + Founder of the club
- + Tutored, taught English, and furnished apartments for refugees.

### By The Hand, Volunteer | Jan 2014 - Feb 2016

- + Tutored elementary school students in Chicago's South and West Side
- + Helped lead bible study

### Whitney M. Young Varsity Football | 2012 - 2016

- + Excellent time management skills.
- + Received All-Academic State Team honors

## Coursework Projects

### First Year

- + Chess Board Game, Racket
- + User-Space UNIX shell, C
- + Cache Simulator + Optimization, C

### Second Year

- + Simplified Netcat Client Server Model, C
- + MTCP Client Implementation, C
- + Man in the Middle attack Implementation, Python