

Ryan Newkirk

CE/CS Student, Robotics & Civic Tech Enthusiast

Education

Whitney M Young Magnet High School
Sept 2014 - Present

Coursework

Notable Favorites

- Computer Science through AP CS
- Math through AP Calc BC
- AP Physics I & II
- H Business
- H Orchestra & H Film
- Mechatronics from Northwestern
- Number Theory from University of Chicago

Skills

Programming Languages

Java, Python, Processing, HTML/CSS (and various abstractions), Javascript, SQL, MongoDB, GraphQL, Ruby, Haskell.

Design, Graphics & Video Editing

Final Cut Pro, Adobe CC Suite, Affinity Designer, Autodesk Inventor, Autodesk Fusion 360, OsciMusic, Simplify3D

Achievements & Awards

2018 Congress of Future Science and Technology Leaders Award of Excellence

2016 Broadcom MASTERS national science competition Semifinalist Normenie

Chicago's Youth Math symposium QED

2014 First Place Award
2015 Successful Mathematics Research Award

City of Chicago Math League (Team)

Algebra 1(Fr.)	1st Place
Geometry(Soph.)	1st Place
Video Contest (Fr/Soph.)	2nd Place

(Individual)

Algebra 1(Fr.)	3rd Place
Video Contest (Jr/Sr.)	1st Place

North Suburban Math League of Illinois (Team)

Whitney Young(16-17)	2nd Place
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(Individual)

Junior Contest (18-19)	4th Place
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First Tech Challenge (Team)

Whitney Young Robotics Team (16-18)
State Championship Team member
Rockwell Collins Innovate Award.

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W!SE Personal Finance Certification

EverFi Personal Finance Certification

Extracurricular Activities

Whitney Young Mobile App Inventor Club

Sept 2017 - Present

Founded this club as a freshman to gather students with or without coding experience to learn how to create mobile apps and build computational thinking skills. School club app, student resource sharing app are all built with helping students life in mind.

FIRST Robotics

2013 - Present

Participate in the "Robophins" FLL/FTC Team. Created a robot capable of performing multiple tasks. Won multiple team awards. Increased school awareness of Robotics. Participated in FIRST Lego League with the "Seismic Squad" and "Lego Fire" teams, building Lego Robots, learning Core Values, and coming up with and presenting solutions to real life problems.

Whitney Young Math Team

Sept 2015 - Present

Participated in WY math team for three years. Attended CCML and NSML, winning numerous individual awards and three-times team first placed.

Foreign Student Teacher Chengdu, China

July 2017

Taught Chinese middle school students English and American cul-ture. Learned Chinese and the diverse culture in China.

UChicago Young Scholar Programs

July 2016 - July 2018

Attended YSP for three years, learning topics surrounding Number Theory and Geometry and broadening my understanding of math.

NorthWestern Center for Talent

Aug 2018

Development Summer Program: Mectronics

Took mechatronics to learn electromechanical design and prototyping. Built circuits and robots from scratch, using low level electrical components, laser cutting and 3D printing mechanical parts built my first autonomous vehicles: a smart shopping cart. Wrote code to read the sensors and control the actuators.

Chihacknight: Chicago Virtual Assistant Project

A regular at Chihacknight, a weekly event for Chicago coders to get together build, share and learn about civic tech. The last project I worked on was building a Chicago Virtual Assistant, a voice controlled 311 request system.

Hack Chicago, Event 0

Won Design Award and Most Ambitions Award for a strategy game/battle simulator we created at Event 0 hackathon.

Orchestra, Viola

Sept 2015 - May 2016

Volunteer Services

National Honor Society Volunteer

Sept 2018 - Present

Took on service roles to support our school. Assisted students during the registration process by organizing their student forms and reports. Helped out during Parent-Teacher Conferences.

Free Geek Chicago Technician

July 2018 - Present

Helped dismantle computers and refurbish parts to create brand new computers.

National Junior Honor Society Volunteer

Sept 2016 - May 2018

Volunteered to support the school and outside activities, for example the 2016 Bank of America Marathon and the 2018 Chicago Spring Half Marathon.

Interests



Composing



Film-Making



3D Printing



Badminton



Graphic Design



<https://x-ry.github.io/>