Activities

Organization Name	Grades Active, Timing	Hours (per week, per year)	Position + Leadership description (50)	Please describe this activity, including what you accomplished and any recognition you received, etc (150)
Northwestern, Feinberg School of Medicine	10-12	8, 354	Research Intern: Worked in Northwestern's Auditory Research Laboratory. Took the lead on two major projects. Delegated work within my team and managed deadlines. Reported to the head of our lab. Presented my projects and held scientific discussions in the lab. Published three papers and was inducted into two conferences.	Wrote code to extract values from over 1000 X-ray fluorescence microscopy scans. Ran statistical analysis to find differences in the level of chemical elements in the Osteogenesis Imperfecta, treated, and control mice. Built a machine learning algorithm to detect nasal sickness based on speech. Utilized different signal-processing algorithms (Fast-fourier, Time wave, Short-term fourier, Continuous wavelet) and tested different machine learning algorithms (Support Vector Machine, K-Nearest Neighbor, and decision trees). Diagnosed Chronic Rhinosinusitis (typically takes three months and millions of dollars) with a 72% accuracy, no cost, and in mere seconds. Published three peer-review papers as first author. Papers are regarding Osteogenesis Imperfecta's effects on element concentration, novel nasal disease diagnosis method, and success of Chronic Rhinosinusitis diagnosis. Was inducted into the Association for Research in Otolaryngology's international conference and the ABRCMS Conference. Received an award from ABRCMS for my work.
University of Chicago	11, 12	10, 110	Research Intern: Worked in the UChicago SAND (Security, Algorithms, Networks and Data) lab. Led the PimEyes project and supported other lab members' projects. Collaborated with PhD students in the lab.	Perused literature regarding projects. Self-taught necessary skills like Git, web design, deepfake generation, and terminal commands. Generated deepfakes on a remote server. Applied deepfakes to measure the scope of an image-scraping software, PimEyes. Created honeypot websites and accounts to be scraped by PimEyes and rigorously monitored them on a daily basis. Automized the monitoring process with code that utilized a VPN and cache-clearer. Ultimately discovered falsehoods in PimEyes' promises to privacy.

Indiana University–Purdue University Indianapolis	10, 11	10, 110	Research Intern: Led the curved road navigation project. Reported to the head professor and collaborated with PhD students.	Self-taught myself MatLab, robotics, and the 'Proportional, Integral, Derivative (PID) algorithm'. Completed the final project for the PID class at IUPUI. Built a self-driving navigation system for curved highways. Created a system to choose the safest and fastest path to drive given the nearby obstacles, cars, and curves of the road. Adjusted the PID algorithm to drive the car along the curved, chosen path.
AI Today Nonprofit	10-12	9, 120	Founder, President: Birthed and sustained my nonprofit. Managed volunteers and delegated classes. Worked in outreach, curriculum design, and tutoring.	Founded a non-profit to teach elementary and middle schoolers Python and Artificial Intelligence for free. Aimed to bridge the STEM education gap I observed in my town. Crafted lesson plans, coding problems and solutions, and larger-scale AI projects for the students. Guided children through coding problems and explained complicated algorithmic concepts in simple terms. Designed social media posts for both instructive and advertising purposes. Programmed a website for outreach purposes. Recruited, organized, and instructed groups of teachers and high schoolers to tutor and host lessons in-person across Illinois and through Zoom across the US. Branched out into subteams (AI Med, AI Intro, etc.) and worked with local schools to reach more students. Instructed over 100 students.
Student Council	11, 12	8, 320	Junior: 03 Hall Senator Senior: Senior Representative Hosted office hours to listen to my peers' concerns. Surveyed student body. Brainstormed and implemented solutions. Discussed current issues with administration. Led and organized three project teams: big sibling program, course evaluation guide, and food service committee. Planned and hosted campus-wide events.	Campaigned through posters and speeches for 2 elections. Led the food service committee, a group of students and staff with diverse food needs. Through the committee, improved food quality and diversity to meet the dietary needs of the student body. Created, organized, and led appreciation days, food surveys, and food tastings. Invented and added a spice rack to improve food taste, salad bar to increase healthy vegetarian options, and a "grab and go" breakfast service to provide food for late sleepers. Designed, crafted, and published the "Course Evaluation Guide" which combines teacher comments and student opinion to 'evaluate' each course offering's difficulty, engagement, and time commitment. Founded the "Big Sib Program" which pairs incoming sophomores with an upperclassman who can guide them with their transition to IMSA. Organized kickoff events, assemblies, homecoming, and other campus-wide events for the school.

Public Forum Debate	10-12	3,120	10: Member 11, 12: Captain Recruited and taught new members. Through my recruitment, the size of the team increased from 10 to >50 people. Organized research sessions and team bonding. Imposed deadlines and hosted mock debates to prepare for tournaments. Communicated with debate advisor for tournament info, tips, and timelines.	Public forum is a debate style where individuals argue in pairs about the pro or con side of a prospective US government bill or controversial topic. Examples of topics include Medicare for all, Nuclear first use, and High-speed rail. Started at novice, and competed Varsity all three years. Researched current controversial political bills which deepened my understanding of politics. Composed cases, summaries, and rebuttals. Sharpened my extemporaneous speaking, interrogation, critical thinking, and presentation skills. Debated at regionals, state, nat-quals, and nationals, working with my partner to win 2nd place in Varsity, 1st place in Varsity, 1st place in Novice (four times), and 1st place in JV. Also earned 1st place speaker award, which is given to the one debater who spoke, questioned, answered, and conducted themselves the best. Finally, I was the only person in my school to earn a badge of distinction from the National Speech and Debate Association.
Math Team	6-12	3, 100	Member	Formed and led teams for math competitions. Collaborated and assisted peers on difficult problems. Competed in MathCounts, ICTM, AMC, and AIME. Won 3rd in ICTM teams and 4th in ICTM individual in 2021. Received 8th place in the Glenbrook North math tournament. Qualified for AIME through AMC12 in 11th grade.
Encore Batavia	10	20, 200	Computer Science and Outreach Intern: Performed IT work. Supported Encore Batavia's development from a technological standpoint. Collaborated and reported to the city and startup founder.	Collaborated with Batavia's geographic information systems (GIS) expert to create a GIS map of Batavia's landmarks. Designed and built a website for increased outreach. Witnessed the startup's growth and changes, inspiring me to start my own non-profit (AI Today). Improved city and tourist experience in Batavia through technological means.
Russian Language Club	12	1, 40	Founder, President	Due to IMSA's Russian program termination, I started the Russian language club to teach the student body Russian. I hosted campus-wide picnics, Russian karaokes, and movies. Crafted Russian language lessons. Educated the school on Russian culture and the Russian language. Recruited board members and

				delegated tasks. Ensured the current and future success of the club.
Annual Biomedical Research Conference for Minority Students (ABRCMS) conference	11	10, 40	Presenter	ABRCMS is an annual, national conference for undergraduate + graduate level research projects. All applicants submit an abstract to be judged. Once inducted, I designed a poster, recorded an audio presentation, and created a transcript of my presentation. These presentations were then judged by specialists in the field. Out of the 30 computational biology projects, mine was the one selected to present at the official conference. For the official conference, I prepared a formal presentation and introduced my project live to other PHD and undergraduate students as well as professional researchers in the biomedical field. In addition, I listened to the presentations from the other categories. Finally, I received an award from the conference for my work.
Varsity Cross Country	6-12		Member	Encouraged new members, motivated my teammates, and trained every morning. During the season, I trained again in the afternoon. Made Varsity at the inception of high school. Have attended State 3 times.

Awards and Honors

Name	Date Awarded	Level	Description (not included in common app)
AIME Qualifier (scored in the top 2.5% of AMC 12)	January 2022	National	The Mathematical Association of America (MAA) sponsors the American Mathematics Competitions (AMC) each year. The top 2.5% of juniors and seniors in the nation who take the exam move on to another level of competition, the American Invitational Mathematics Examination (AIME). I took the AMC 12 junior year and made it into AIME.
Public Forum Nationals Qualifier (placed second at nat-quals)	June 2021	International	I placed second at nat-quals, moving my partner and I on to nationals. At nationals we debated against people from all around the world.
1st Place American Computer Science League (ACSL) State Competition	July 2021	State	ACSL is a coding competition with two parts. One is a multiple choice test and the other is a coding problem. Participants are graded based on their performance in each part. People with enough points throughout the season go to state. I received a perfect score every round in the season and got first place at state.
1st Place Test of Engineering Aptitude, Mathematics, and Science (TEAMS) State	April 2021	State	TEAMS (Tests of Engineering Aptitude, Mathematics, and Science) is an annual science, technology, engineering, and mathematics (STEM) competition that challenges middle school and high school student teams to work collaboratively to solve real-world engineering challenges. There is a multiple choice and 'build' section. My team scored highest overall, giving us first at State.
1st Place Public Forum Speaker	December 2020	Regional	In public forum, each individual is given a score for how well they argued, spoke, and interacted with the opposition. These scores are added up after a competition and the individuals with the highest scores are ranked and awarded with speaker awards.

2nd Place Varsity PF	December 2021, April 2022	Regional	My partner and I won second place at our second varsity debate competition and at nat-quals. This means we scored the 2nd highest number of wins (if two pairs are tied, the group with the highest speaker points is ranked higher).
Accepted into Association for Research in Otolaryngology National Otyrology Conference	February 2022	International	The ARO conference contains Otolaryngology researchers from all around the world. I submitted the abstract of my first research project at Feinberg and was accepted to the conference.
AP Scholar with Distinction	July 2022	N/A	The AP Scholar with Distinction is awarded to students who receive an average score of at least 3.5 on all AP Exams taken, and scores of 3 or higher on five or more of these exams. It is the highest level AP award.
First Author OIM Paper		N/A	
First Author ML diagnosis Paper		N/A	
First/Second Author CRS ML		N/A	

Special Circumstances

- Skipped 9th grade
- Taking BC 2/3 class over Summer 2022 =>passing out of BC3 at IMSA
- ~~Concussion, head & neck fracture in late 2021, healed by May 2022, out of school for 1.5 weeks~~