Anvita Rayabarapu

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Education:

Blue Valley West High School   Anticipated Graduation: May of 2026
Unweighted GPA: 4.0   *Weighted GPA*: 4.929
Honors and Awards: National Merit Semifinalist, Congressional Award Gold Medal, The President's Volunteer
          Service Award, Officer of the Math Honors Society
Relevant AP Courses: Calculus BC, Calculus AB, Statistics, Biology, Chemistry, Physics 1, Computer Science A,
          Computer Science Principles, Psychology, Environmental Science
Programming Languages: Python, Java, Javascript, SQL, Swift, HTML
PSAT/NMSQT Scores (out of 1520): Scored a 1470 (99th percentile) with a perfect score (760) in math

Research Experience:

Summer Science Program International (SSPI) in Bacterial Genomics   2025-2025
- Selected for a highly competitive 5-week residential research program in bacterial genomics
- Collaborated with teammates to investigate antimicrobial resistance in *Vibrio natriegens*
- Conducted wet-lab and computational analysis of adaptive mutations
- Presented research findings on how prolonged antibiotic stress drives genomic evolution

NASA GeneLab for High Schools (GL4HS) Research Program   2025-2025
- Completed a 12-week research program focused on space biology and genomics
- Analyzed real omics datasets using bioinformatics tools and Python
- Explored the effects of microgravity on gene expression in model organisms

Research Assistant at The University of Kansas Medical Center   2024-Present
- Worked under Professor Liskin Swint-Kruse for protein science
- Assisted with research on protein structure-function and personalized medicine
- Studied protein evolution and bacterial metabolism regulation
- Examined rheostat positions to enhance prediction algorithms for protein changes

Dysgraphia Detection and Analysis Project   2024-Present
- Conducted research on dysgraphia and its impact
- Developed a machine learning model integrated with Optical Character Recognition
- Utilized Python to design and implement algorithms for dysgraphia detection
- Analyzed publicly available data to assess common handwriting inaccuracies

Science Activities and Awards:

United States National Chemistry Olympiad (USNCO)   2023
- Qualified for the National Chemistry Olympiad

National Science Bowl (NSB)   2022-Present
- Earned 13th place at the National Tournament as a team
- Placed 1st at the Kansas Regional Tournament as a team

Science Olympiad   2022-Present
- Placed 1st in the Disease Detectives event at the Kansas State Tournament
- Earned 3rd place in the Bio-Process Lab event at the Kansas State Tournament
- Achieved 6th place in the Food Science event at the Kansas State Tournament

Ambassador Program for North South Foundation Alumni (APNA)   2023-Present
- Explained STEM opportunities to an underserved school in Telangana, India
- Educated 30 middle school girls about women in STEM

Femineer-CalPolyEngineering   2022-2024
- Completed team-based design challenges and prototypes, applying engineering and problem-solving skills.

Mathematics Activities and Awards:

MATHCOUNTS Community Coaching Program   2024-Present
- Selected as a cohort member to coach students at an underserved middle school
- Organized meetings to teach 15+ students competitive math problem-solving skills

Math Honors Society (Mu Alpha Theta)   2022-Present
- Served as a school club officer
- Ran multiple middle school math competitions involving around 100 competitors
- Created and graded problems for the competition math tests

American Mathematics Competition 8 and 10 (AMC)   2022-Present
- Achieved the D.E. Shaw Group AMC 10 A Certificate of Excellence
- Earned the Two Sigma AMC 10 B Certificate of Excellence
- Placed 3rd at the School level for the AMC 8 exam

Math Coaching at North South Foundation   2022-Present
- Taught group math sessions for middle school students
- Prepared advanced students for mathematical competitions (MATHCOUNTS, AMC)
- Worked with 15 different students for a total of 324 hours

Computer Science Activities and Awards:
Business Professionals of America (BPA)   2022-Present
- Placed 13th at the National level in the SQL Database Fundamentals event
- Earned 2nd place at the State level in the SQL Database Fundamentals event
- Passed the Certiport IT Specialist: Databases Certification exam

ProjectCSGirls   2022
- Qualified for the National Finals Competition
- Created a website to promote mental health awareness
- Presented skills in Java, Python, and HTML

Girls Who Code (GWC)   2020-Present
- Participated in the Summer Immersion Program (SIP)
- Joined the after-school program for Blue Valley students
- Gained knowledge and skills in Java, JavaScript, Python, Swift, and SQL

Other Activities and Awards:
Zaner-Bloser National Handwriting Contest   2021
- National Handwriting Contest Champion
- Competed in the cursive category against 80,000 students overall
- Participated in an interview for the National Public Radio (NPR)

Policy Debate   2022-Present
- Served as a Debate Leadership Committee Officer
- Qualified for the KSHSAA 2-Speaker State Tournament
- Earned 5th place at Kansas Novice State Tournament as a team
- Placed 4th as an individual speaker at Kansas Novice State Tournament
- Qualified for finals in five Novice tournaments

Work Experience:
Data Science Intern at c2fo   2025-2025
- Selected as a scholar member of the Young Entrepreneurs Program
- Developed Power BI dashboards to visualize year-over-year performance trends
- Queried datasets using SQL to extract participant-level metrics across two years
- Analyzed and compared Gross Margin Return to evaluate key performance indicators

Health Tech Intern at BobiHealth   2024-Present
- Developed promotional materials, including social media posts
- Tested and debugged app prototypes for errors and improvements
- Collaborated with health and tech professionals for expert insights

Center Assistant Position at Kumon   2023-2024
- Tutored elementary and middle school students in Math and Reading
- Graded students' homework and tests