

Mishika Bhatia

Highlands Ranch, CO | mishikabhatia08@gmail.com | www.mishikabhatia.com

EDUCATION

Rock Canyon High School — *Class of 2026*

GPA: 3.9 UW / 4.47 W

AP Coursework: Physics I, Physics II, Chemistry, Biology, Psychology, Calculus AB, Statistics, Macroeconomics, United States Government, Human Geography, English Language & Composition

Test Scores: 35 ACT

Arapahoe Community College (ACC)/Legacy Campus — *CE/Dual Enrollment*

GPA: 4.0

Coursework: EMT/EMS Academy, CTE Intro to Biotechnology, CTE Experimental Design in Biotechnology Research, CTE Biotechnology Capstone, 1021 English Composition, 1022 Intro to Lit

HONORS

Regeneron ISEF 2nd Place Translational Medical Science Grand Award 2025

One of ~300 Regeneron ISEF Grand Award Winners worldwide for research on *Saw Palmetto-induced Inhibition of the 5 α -reductase Pathway as a Clinical Treatment for PCOS*

Regeneron Biomedical Science Award 2025

Awarded for exceptional achievement and command of biomedical research at ISEF-affiliated science fair

Colorado-Wyoming Junior Academy of Sciences 2nd Place Award & AJAS Invitee 2025

2nd Place Session Award, American Junior Academy of Sciences Member, AJAS-NAAS Conference Invitee/Qualifier

Denver Metro Regional Science & Engineering Fair (DMRSEF) 2025

- Best in Fair (2nd Overall)
- 2nd Place in Senior Health & Medicine
- 1st Place U.S. Air Force Award
- CU Denver Health & Safety Award

Boettcher Scholarship Semifinalist 2025

One of Top 300 Colorado high school students selected for academic excellence, leadership, and character

Douglas County Outstanding Youth Award 2025

Recognizes 10 youth in Douglas, CO who have overcome adversity to create meaningful community impact

National Merit Commended Scholar 2025

One of 34,000 semifinalists out of 1.3M qualified students nationwide (top 2-3%) for performance on the PSAT.

Harvard Undergraduate Health Policy Review 1st Place Young Scholars Program 2024

1st Place for the essay “*Unveiling Racial Disparities in Dermatology: A Call for Inclusive Medical Care*”

Jacob's Teen Innovation Challenge (JTIC) 3rd Place Global Winner & 3x Finalist

2023

2022-2024 3x Finalist & 2023 3rd Place Global Winner; awards in UN categories of Climate Action, Gender Equality, and Good Health & Wellbeing

eCYBERMISSION Innovation 2nd Place State Award

2023

2nd Place Award for the Colorado eCM Innovation Challenge for project on *The Optimization of PETG 3D-Printed Homes as a Response Against Natural Disaster Destruction*

RESEARCH

University of Colorado Anschutz Medical Campus — Aurora, CO

Student Researcher | Mentor: Dr. Joshua Johnson, PhD

- Designed and conducted translational research investigating Saw Palmetto–induced inhibition of the 5 α -reductase pathway as a therapeutic treatment for PCOS
- Identified significant reductions in DHT production using a human follicle dermal papilla cell model
- Developed and tested pharmacological enzyme model for kinetic drug/therapy testing in PCOS
- Research recognized statewide and at Regeneron ISEF; submitted to Regeneron Science Talent Search

Children's Hospital Colorado Department of Pediatric Surgery — Aurora, CO

Lead Researcher | Mentor: Dr. Annie Kulungowski, MD

- Designed and conducted research on pilonidal disease and corresponding hormonal abnormalities in pediatric populations/excised cystic tissue using LC-MS/MS
- Manuscript in preparation; publication expected Fall of 2026

INNOVATION PROJECTS

The Optimization of PETG 3D-Printed Homes for Natural Disaster Resilience

- Designed curvilinear, Fibonacci-ratio–based structures capable of withstanding 10,000 PSI for use during natural disasters for homeless/displaced populations
- Reduced costs of disaster shelter construction to \$8 per sq in

OriFlair Sustainable Solar Charger

- Designed a lightweight, rapid-charge solar power system with a charging rate 5.39% faster than a typical iPhone charger in diverse weather/climates, with a minimum efficacy of 1,897+ mAmps per test
- Focused on accessibility, portability, and youth-centered climate engagement

FemFairy

- Developed a safety application to combat GBV (gender-based violence) with advanced geospatial alerts and multi-contact emergency broadcasting
- Created an integrated LLM-powered safer-route mapping software

Vivaly

- Developed and implemented a machine-learning–based content moderation system trained on a labeled corpus of social media data to detect discriminatory, abusive, and inappropriate language
- Engineered an automated real-time moderation pipeline that suppresses flagged content from public view, notifies users, and escalates violations to administrators for review
- Integrated platform-level safeguards to promote digital well-being, safe online interaction, and youth mental health

LEADERSHIP & SERVICE

Director of Creative Design & Media Team Co-Founder/President, Lady Trailblazer Inc. Aurora, CO

- Developed a math efficacy curriculum for K–12 students
- Founded and leads five statewide Girls' Persist STEM leadership programs (K-12)
- Co-Founder/President of Lady Trailblazer Media Team; designs, codes, and produces quarterly digital newsletter
- Works directly with the organization's CEO/Founder and Board of Directors on program expansion

President, Technology Student Association (TSA) — Rock Canyon HS Littleton, CO

- President (2024-2025); Senior Officer (2025-2026)
- Leads/organizes chapter of 200+ members for state conference

Committee Head, Technology Student Association (TSA) — Colorado Denver, CO

- Committee Head/Co-Head of Fundraising (2022, 2024), Community Service (2023), and State Conference (2024, 2025) Colorado TSA State Committees
- Organizes fundraising and volunteering events, judging preparations, works with industry partners/sponsors, creates developmental materials for state conference, runs workshops, manages TSA Store, etc.

President/Co-Founder, HOSA — Rock Canyon HS Littleton, CO

- Re-affiliated and expanded school HOSA chapter to 100+ members
- Organizes blood drives, social events, state registration, chapter meetings, etc.

Vice President/Co-Founder, Model United Nations — Rock Canyon HS Littleton, CO

- Organizes mock conferences, lead classes for new competitors (position papers, motions, etc.)
- Manages club social media & resource repository; grew program to 100+ members

Volunteer, Children's Hospital Colorado (200+ hours) Highlands Ranch, CO

- CCBC/inpatient volunteer; takes notes of patient requests for nurses, answers non-clinical calls
- Works with patients and families for surgery check-in or at the Creative Play Center

MEDIA/SUPPLEMENTAL MATERIALS

Science Times - *Rethinking PCOS: How a High School Scientist is Opening New Doors for Women's Health*

Lady Trailblazer Inc. - Quarterly Newsletters

HUHPR - *Unveiling Racial Disparities in Dermatology*

Rock Media - RCHS TSA, Girls' Persist, etc.