Ishaan Hemrajani

ishaanhemrajani0@gmail.com • (832)-581-0603

EDUCATION

Jordan High School (GPA: 3.9677/4.0 UW, 4.806/4.0 W | Rank: 12/721) May 2025

ACT Composite Score: 34 (Math: 35, Reading: 35, Science: 35, English: 32)

EXPERIENCE

Research Made Accessible June 2022 - Present
Non-Profit Co-Founder
• Created the largest free research mentor-matching program by collaborating with over 300 professors and connecting them with over 2,000 students in order to bridge the gap in research mentorship availability
• Impacted over 6,000 students through seminars and mentorship to educate on how to properly research and give opportunities to students, and gained 10,000+ Instagram followers
• Directed the creation of a mentor-student matching system specifically designed to address the shortage of mentors and facilitate meaningful academic partnerships in order to make disadvantaged students more involved in academia

LiteracyLabs June 2022 - Present
Initiative Co-Founder
• Co-founded LiteracyLabs, an initiative dedicated to supporting special education and low-income youth through virtual and in-person literacy programs
•Developed and implemented a scientific and financial literacy curriculum across the Dominican Republic, India, and Nepal, impacting over 6,500 students
•Partnered with 120 schools across 67 districts, reaching more than 400 classrooms and training 70+ educators to deliver the curriculum
•Focused on enhancing educational access and equity for underrepresented communities by integrating innovative, adaptable teaching methods

Research @ George Mason University – Houston, TX (Virtual) June 2023 - Sept 2023
Research Internship
• Collaborated with Dr. Jiasun Li in pioneering research on security investigations into optimistic roll-ups, focusing on identifying and addressing potential vulnerabilities by delving deep into the underlying mechanisms and security protocols, contributing significantly to the enhancement of system robustness and reliability in these blockchain technologies
• Played a pivotal role in uncovering and analyzing critical security weaknesses in Arbitrum's policy by conducting methodical research and testing, leading to the discovery of key areas for improvement, thereby contributing to the advancement of security measures and best practices in blockchain implementations

Research @ Texas A&M Kingsville University – Houston, TX (Virtual) July 2023 - August 2023 & July 2024 - August 2024
Research Intern
• Collaborated with Professor Fernandez at Texas A&M Kingsville to research U.S. real estate market trends, focusing on monthly price variance across regions
• Collected and organized large datasets using Excel, ensuring accurate data representation for analysis
• Utilized R to create an interactive digital dashboard, enabling real-time visualization of monthly real estate price fluctuations
• Applied statistical methods to analyze market trends and provide insights into regional price patterns and their economic implications

Enviro-Credit
• Developed a blockchain prototype utilizing distributed ledger technology (DLT) to securely track and record carbon credits across multiple stakeholders to ensure transparency and accountability
• Designed and implemented a smart contract system to issue verification vouchers, automating the validation process and preventing the double-counting of carbon credits
• Integrated cryptographic hashing and consensus algorithms to maintain the integrity and immutability of transactions within the carbon credit marketplace

ImaginX – Houston, TX (Virtual)   March 2023 - Present
Youth Developer
• Researched and evaluated Learning Management System (LMS) integrations, such as Canvas, for use in an Augmented Virtual Reality (AVR) education model at ImaginX
• Developed a seamless integration strategy to enhance the user experience of AVR content within existing LMS platforms, improving accessibility for educators and students
• Assisted in marketing the AVR education model, which reached over 33,000 students across 77 schools in the Tulsa Public Schools District
• Supported the implementation of innovative AVR-based visualization tools in educational environments, helping improve engagement and learning outcomes for students

Kastech SSG – Houston, TX   June 2023 - Aug 2023
Internship
• Received training on Kastech's artificial intelligence services including machine learning, natural language processing, computer vision and robotics
• Learned to utilize functions of AI to leverage the full potential of Kastech's clientele data—by using data mining, predictive modeling and machine learning algorithms.
• Connected and discussed with Kastech's international clientele to provide insight on new functions

DeuceReduce – Houston, TX   Dec 2022 - Present
Initiative Co-Founder
• Spearheaded a recycling initiative within the non-profit sector, successfully offsetting over 52,000 pounds of carbon emissions through the recycling of more than 50,000 tennis balls
• Managed strategic partnerships with a range of institutions including Rice Tennis and King's Courts which enhanced its reach and impact across the greater Katy area
• Led the design and implementation of recycling bin setups across the greater Katy area to mobilize community engagement in support of environmental conservation efforts

Mathnasium Tutor   — Fulshear, TX   April 2024 – Present
• Taught over 20 middle and elementary students foundational math concepts, including arithmetic and problem-solving techniques
• Designed and implemented a new instructional system focused on teaching ratios, rates, and percentages to improve student comprehension and engagement
• Promoted to Level 2 Instructor for demonstrating leadership, instructional excellence, and a commitment to student development

Google Code Next – Houston, TX (Virtual)   Aug 2022 - June 2023
Internship
• Trained a machine-learning model to predict the direction of stocks & cryptocurrencies using google cloud, unfortunately it became too expensive to stay online
• Met other students around the world passionate about the computing field and worked with them to hone my coding abilities
• Learned how coding could be applied to various arts, including music and painting

EXTRACURRICULARS

Jordan High School Varsity Debate | Public Forum Captain (22-24)   2021 – Present
• Mentored 20 novice debaters, focusing on argument construction, critical thinking, and effective public speaking, leading to 5 state-qualifiers
• Organized and led weekly practices and lectures for 30+ underclassmen, fostering skill development in research, analysis, and debate strategy
• Competed in various regional and national tournaments, improving team rankings through comprehensive case preparation and cross-examination techniques
• Held bi-weekly practice for member improvement opportunities which ended up matriculating into over 5+ new team state qualifiers after captainship
• Conducted debate camp for 40+ kids, educated them on public speaking, presentation skills, different forms of debate and

hosted practice rounds + speaking drills.

[Investment Club](#) **| Co-President (23-24), Treasurer (22-23)**   2021 – Present
• Taught 150+ students about stock market investing, cryptocurrency, and financial management, leading to a 300% increase in club membership
• Led interactive workshops bi-weekly, introducing students to financial jargon, portfolio management, and investment strategies
• Guided members through the stock pitch and research process for large-scale companies, preparing 5 teams that competed in the Wharton Investment Competition
• Developed and executed financial education initiatives, enhancing members' understanding of risk management and responsible investing practices

Future Business Leaders of America (FBLA) | Competitor   2023 – Present

• Reached FBLA Nationals for Business Communications, demonstrating proficiency in professional communication, business writing, and public speaking

• Developed skills in crafting clear, concise business messages and presentations, tailored to specific audiences and purposes

• Honed leadership and collaboration abilities by competing at the state level and securing 1st place at Texas FBLA for Business Communications

Technology Student Association (TSA) | Competitor   2022 – Present

• Competed in TSA for Virtual Reality & Engineering Design, showcasing skills in 3D modeling, engineering concepts, and project management

• Strengthened critical thinking and teamwork by placing 9th out of 400 active teams in TX in debates on technological advancements such as Social Media and their societal impact

• Gained practical experience in virtual reality development, problem-solving, and defending design decisions in high-pressure competitive settings

• Placed 5th in Texas for Computer Onsite Skills Multimedia Presentation, demonstrating advanced proficiency in multimedia content creation, video editing, and software applications under time constraints

AWARDS

Research Publications & Presentations

• Publication in International Advance Journal of Engineering Research (IAJER), a double-blind peer-reviewed journal, for research on the profitability implications on companies if blockchain were to be implemented in cloud computing

• Published abstract in [George Mason' Journal of Student-Scientists Research](#) for my investigation into the security of Arbitrum's implementation of optimistic roll-ups

• Publication in [CurieX's Academic Journal](#) (June Edition) for research on the implementation of blockchain into cloud computing

• Presented my research on Arbitrum's optimistic roll-ups security flaws at George Mason's Annual Aspiring Summer Scientists Internship Program Conference

• Going to present my Real-Estate Visualization research on October 22nd at the [Department of Education's FY 2024 MSEIP Student Research Conference](#) (link is from last year's conference)

USA Computing Olympiad Gold

• Competed in the USA Computing Olympiad (USACO) Gold Division after receiving perfect scores in silver and bronze demonstrating proficiency in advanced algorithms and data structures

• Developed and implemented solutions in C++ to solve complex programming challenges under time constraints

• Earned the second highest award in the competition which ranks among the top high-school students nationwide

• Enhanced problem-solving skills through practice with dynamic programming, graph theory, and advanced searching techniques

National Speech and Debate Association Recognition / Debate Awards

• NSDA All-American: Received award which celebrates the competitive success of high school students. Fewer than 2% of NSDA students earn this designation each year.

• Outstanding distinction: Received award which celebrates reaching 1,000 merit points for continued competitive success at tournaments. Approximately 4% of students ever achieve this designation by receiving 1,000 merit points.

• Tournament of Champions Qualifier: Qualified to the Tournament of Champions and placed 18th place. Around 1% of debaters ever qualify to the Tournament of Champions, and 18th place is in the top 50% of that 1%.

• First Public-Forum Team from Jordan High School to ever state-qualify

YIS Stock Pitch Competition

• Placed Top 3 in Texas at the Youth Investors Society (YIS) Stock Pitch Competition with a strategic pitch on Dole's growth potential and financial health

• Conducted in-depth financial analysis, including valuation, competitive landscape assessment, and risk analysis to support the investment recommendation

• Demonstrated strong presentation skills by effectively communicating the stock pitch to a panel of judges, leading to advancement to Nationals in New York City

• Gained experience in equity research, market trends, and investment strategy, competing against top young investors nationwide

A & M Ideas Challenge Finalist
• Received finalist award out of over 400 idea submissions (40/ >400)

• Created an idea to reuse condensation water from an AC unit through a condensate pump which would collect the AC's wasted water which would then be recirculated back into the home's water supply and get filtered for fresh use

• Created an algorithm for homes to track their water wastage based on the number of AC units, bathrooms, and showers in their home

Boys State Nominee

• Nominated as 1 of 5 students from the school for Boys State, recognized for leadership potential and communication skill

• Earned distinction for demonstrating a commitment to civic engagement and leadership in school activities

Scholastic Writing Competition

• Received Scholastic Honorable Mention (2024) in the Critical Essay category discussing the potential use cases for blockchain to solve the misgovernance of carbon credits

Advanced Placement (AP) Awards

• AP Capstone Diploma (2024): Awarded for achieving scores of 3 or higher in both AP Seminar and AP Research, along with 4 additional AP exams

• AP Scholar with Distinction (2023 & 2024): Earned for averaging over 3.5 AP exam score on at least 5 AP exams

COURSES

Coursera: Principles of Sustainable Finance, Erasmus University Rotterdam

• Gained an in-depth understanding of the UN Sustainable Development Goals (SDGs) and their integration into financial decision-making, learning how social and environmental factors influence investment strategies

• Explored sustainable banking, asset management, and effective stakeholder engagement, analyzing real-world case studies to assess long-term value creation and scenario analysis

• Applied sustainable finance principles to evaluate the financial sector's role in transitioning toward a more sustainable global economy, understanding how finance can be mobilized for social and environmental impact

Coursera: Financial Markets, Yale University
• Acquired essential knowledge of risk management and behavioral finance principles, learning how these concepts shape the functioning of securities, insurance, and banking industries

• Developed financially-savvy leadership skills by studying real-world financial practices and analyzing their future implications for risk management and enterprise development

• Explored the role of financial markets in fostering innovation and managing risks, with a focus on using these systems to promote societal well-being and a more resilient economy

AP Coursework:

Computer Science A, Computer Science Principles, Seminar, Human Geography, Psychology, Microeconomics, US History, Calculus BC, Research, Language, Statistics, Art History, Physics 1 & 2, Government, Macroeconomics, European History, Literature, Environmental Science