

# **Tejaaswin Raja (Tej)**

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## **Education**

### **Athens High School - Troy, MI Aug 2022 – May 2026**

- GPA: 4.03 / 5.00
- AP / Honors Curriculum
- National Merit Semifinalist
- AP Scholar with Distinction
- National Honor Society Inductee
- Graduation: May 2026

### **Lawrence Technological University - Southfield, MI Dual Enrollment, Aug 2025 – May 2026**

- Courses: Calculus III, Linear Algebra

## **Honors & Awards**

- Metro Detroit SEFMD – Great Lakes Water Authority Award, 2nd Place
- U.S. National Chemistry Olympiad, Metro Detroit Runner-Up
- Science Olympiad (National/State/Regional) – 66+ awards
- Outstanding Volunteer Awards (Key2Finesse, TANA)
- MVP Volunteering Award (500+ hours)

## **Research & Publications**

### **Research (miRcore, University of Michigan - Ann Arbor Campus)**

- Conducted research on the correlation between neuronal vesicle formation and Creutzfeldt-Jakob Disease under the guidance of Mayee Chen and Dr. Inhan Lee
- Presented research on the ***Implication of Neuronal Vesicle Formation Dysfunction in Creutzfeldt-Jakob Disease*** at the 2025 miRcore research conference chaired by Henry Paulson, M.D., Ph.D.
- Research on the ***Implication of Neuronal Vesicle Formation Dysfunction in Creutzfeldt-Jakob Disease*** is currently in the prepublication stage

### **Research (*Relationship Between Dental Anxiety Levels and the Intensity of Bruxism in Adolescents, Troy Athens High School*)**

- Conducted research on the ***Relationship Between Dental Anxiety Levels and the Intensity of Bruxism in Adolescents*** with a friend
- Identified a gap in knowledge within the medical field and gathered data through an online survey sent out to people with Bruxism and/or Dental Anxiety
- Our research on the ***Relationship Between Dental Anxiety Levels and the Intensity of Bruxism in Adolescents*** is currently in the prepublication stage

### ***Research (SEFMD, Using a Homemade Oxidation Reduction Probe to Measure the Quantities of Different Ionic Compounds in Water)***

- Created a cheaper Oxidation Reduction Probe using commonly available items (**20% of the cost** and **equal/improved performance** in comparison to the industry standard)
- Presented findings at the **Science and Engineering Fair of Metro Detroit 2025** and won a 2nd place prize with the **Great Lakes Water Authority**

### ***Research (SEFMD, Development/Testing of DIY Tribometer to identify Sustainable Lubricant Oil)***

- Created a machine with Legos to test the coefficient of friction of different oils to find a more sustainable alternative to industrial lubricants in low temperature applications
- Presented findings at the **Science and Engineering Fair of Metro Detroit 2022** and won the **Broadcom Foundation-Coding for Commitment Award**

## **Leadership & Activities**

### **Science Olympiad**

#### **Elementary & Middle School (2016–2022)**

- Active participant since 3rd grade, competing in 3–5 events annually (pause during COVID year, 2021).
- Competed in 13 State and National level Tournaments, earning 28+ medals.

#### **High School (2022–2026)**

- Elected Treasurer (Sophomore year); managed finances and supported team logistics.
- Elected President (Junior year) by student body and faculty council; re-elected Senior year.
- Competed in 24 State & National level tournaments, earning 66+ medals.
- Organized and led practices, guiding the team to multiple top-5 state finishes.

### **Student Body Representative - Athens High School**

- Selected by faculty and peers to represent Athens High School in the **design and development planning sessions** for the Troy School District's **\$550M facility improvement bond initiative (approved by voters in 2022)**.
- Participated in design and decision committee sessions focused on long-term district improvements, including renovations to Athens High School and construction of a new Smith Middle School.
- Contributed student perspectives on infrastructure, learning environments, and community impact.
- Honored to serve alongside district leaders, architects, and educators in shaping the future of Troy schools.

## Music

- Varsity Marching Band & Symphonic Band - 3rd Chair Clarinet, **four-year varsity member**.
- **MSBOA Competitions** - Competed from middle school through high school; consistently earned **Superior ratings** and won individual and ensemble awards.
- **Performance Highlights** - Played at the **Detroit Symphony Orchestra**
- Mentored younger clarinet students, leading sectional practices.

## Model United Nations (MUN)

- Active participant all four years of high school.
- Served as **Delegate Training Director**, mentoring new members in debate, research, and public speaking.
- Attended statewide conferences, debating issues such as climate change, human rights, and international security.
- Earned **Outstanding Delegate awards** for persuasive speaking and consensus-building.

## Health Occupations Students of America (HOSA)

- Engaged across all high school years, combining healthcare interest with leadership and competition.
- Served as **Voting Delegate**, representing Athens High School in organizational decisions.
- Competed in **Biomedical Debate and Parliamentary Procedure (Parli Pro); 2x State Qualifier**.
- Organized study sessions and prepared resources for peers, strengthening team performance.

## Math Competitions

- AMC, Michigan Math League, Mu Alpha Theta — Competed throughout high school; earned **highest AMC score in school**.
- Tutored peers and supported math research initiatives.
- **Math Kangaroo** - Crowned **State Champion in 1st grade**, recognized by the School District President; continued competing through middle school, earning multiple awards.

## Healthcare Shadowing

- Shadowed physicians in **Cardiology, Nephrology, and Radiology** across multiple summers.
- **Observed** and assisted with clinical tasks with **clinical tasks** such as recording **vitals** and **centrifuging blood** samples.
- **Gained insight** into how the **body functions** as an interconnected system, **observing overlaps between cardiovascular, renal, and imaging specialties**.
- Witnessed the **balance of empathy, communication, and interdisciplinary collaboration** that drives **effective patient outcomes**.

## Community Service

- **Key2Finesse** - Volunteer, mentor, and later Executive Board Member; supported multiple public causes annually. Helped raise over **\$400,000+ in four years**. Twice recognized as an **Outstanding Volunteer**.
- **Corewell Health** (Hospital) - Volunteered since 2022 at the Imaging Center, Pharmacy, and as a patient walker. Assisted with medication organization, guided patients, and supported imaging procedures.
- **Non-Profit Association (TANA)** - Served on registration, event organizing, and outreach committees. Helped develop an app to verify ticket purchases, coordinated cultural events, and led the **school backpack program** for underprivileged students in Michigan.
- Began as a **student** in the **Computational Biology Program** (Summer 2022), learning **bioinformatics**, GEO2R and stringDB
- Conducted computational biology research from Fall 2022 to Spring 2024 on Alzheimer's Disease, Parkinson's Disease and Multiple Sclerosis with inconclusive results.
- Learned **R programming language** in Summer 2023 to broaden my knowledge in computational biology
- Advanced to **Summer Camp Group Leader (2024–Current)** – Handpicked as a **volunteer** based on credentials and performance; **youngest** ever person selected for this role; taught and mentored six batches of students across two summers in week-long programs (300+ hours total).
- Recognized for combining scientific inquiry with leadership and teaching, bridging personal research with community impact.

## Military Service

Private in the U.S. National Guard, demonstrating commitment to service, discipline, and leadership.

## **Skills & Languages**

- **Languages:** English (Fluent), Telugu (Spoken), Spanish (Read/Write/Spoken)
- **Skills:** Research, Leadership, Public Speaking, STEM Competitions, Fundraising, Team Management, CAD, C/C++, Microsoft Suites, Python, Java