Anshi Paul

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EDUCATION

Hershey High School, Hershey, PA *Rising Senior, Class of 2025*
GPA: Weighted **4.40 / 4.0**
ACT: 35/36 (Writing: 11/12)
Advanced Placement: AP Computer Science A, AP Psychology, AP English Language & Composition, AP Chemistry, AP Calculus BC, AP US History, AP Biology
Planned Senior Year Advanced Placement + Dual Enrollment: AP Spanish Language, AP Physics C, AP Statistics, AP Literature, AP Environmental Science, Discrete Math

Pennsylvania Governor's School for the Sciences, Carnegie Mellon University, *Class of 2024*
Pittsburgh, PA

SKILLS

Java, Python, Raspberry Pi, Arduino, Git + GitHub, HTML5, CSS, JavaScript, React, Next, Flutter, Facial Recognition, Object Recognition, Wearables, Assistive Technology, Memory Aids

EXPERIENCE

Beginner Piano Tutor, *Summers of 2021-2023*
Introduction to Computer Science Tutor, *Summer 2023*
Beginner Flute Tutor, *Summer 2023*
Intermediate Chess Tutor, *Summer 2023*

HONORS & AWARDS

2024: **PJAS (Pennsylvania Junior Academy of Science) States - 1st Award & Perfect Score**
- Presented research in an oral presentation and received a score of 5.00/5.00

PJAS States - Senior Excellence in Engineering
- Won the Engineering category in the Senior Division (Grades 10 to 12)

Acceptance into Pennsylvania Governor's School for the Sciences (PGSS) 2024
NCWIT Aspirations in Computing High School Award - National Honorable Mention
NCWIT Aspirations in Computing High School Award - Central Pennsylvania Winner
FIRST FRC Dean's List Semi-Finalist
- Was nominated from Team 2539, becoming a Dean's List Nominee
- Won the Dean's List Award at the District event

PJAS Region 4 - 1st Award & Perfect Score
- Presented research in an oral presentation and received a score of 5.00/5.00, qualifying for the State competition

CASEF (Capital Area Science and Engineering Fair) - Second Place
Science Olympiad Division C Invitationals, Regionals, & States - Medalled
- Experimental Design: Invitationals 3rd, Regionals 2nd, States 8th
- Flight: Regionals 1st and state record at the time of regionals
- Robot Tour: Regionals 2nd

2023: **Regeneron International Science and Engineering Fair (ISEF) - Finalist**

- Qualified for and competed with ~1,600 students from 60+ countries

International BioGENEius Challenge - Winner

- Received the highest score after being selected as one of the Top 13 International BioGENEius Finalists for research projects in biotechnology

ISEF NC State College of Engineering Special Award

- ISEF Special Award for projects in the general computer science and engineering field
- Awarded a $1.5K scholarship to attend a 2024 residential summer camp at NC State College of Engineering

CASEF (Capital Area Science and Engineering Fair) - Senior Division Grand Champion

- Won CASEF for developing a wearable memory assistive device for dementia and Alzheimer's patients using machine learning facial recognition
- Qualified for Regeneron ISEF

CASEF TEEM (Technology, Engineering, Math) Category - 1st Award

- Presented project through a poster board and interviews and earned a high enough score to win a 1st Award and win the CASEF TEEM category

PJAS (Pennsylvania Junior Academy of Science) Region 4 - 1st Award

- Presented research in an oral presentation and received a score of above 4 / 5 to receive 1st Award
- Qualified for PJAS States (ISEF conflict)

CASEF Special Awards - Medical Center Award, IEEE Award, and Love Award for Science Communication Skills

Science Olympiad Division C Invitationals and Regionals - Medaled in Flight and Wifi Lab (2nd overall in regionals, States conflict)

2022: **CASEF TEEM Category - 1st Award**

- Presented project through a poster board and interviews and earned a high enough score to win a 1st Award and win the CASEF TEEM category for the continuation of development of a tabletop braille-based communication device to bridge the deafblind communication gap

PJAS Region 4 - 1st Award

- Presented research in an oral presentation and received a score of above 4 / 5 to receive 1st Award
- Qualified for PJAS States

PJAS States - 1st Award and Perfect Score

- Presented research in an oral presentation and scored 5 / 5 to receive 1st Award and a perfect score

PJAS States - Excellence in Engineering (Engineering Category Winner for Grades 6-9)

CASEF Special Awards - Love Award for Science Communication Skills and IEEE Award

Science Olympiad Division B Invitationals, Regionals, and States - Medaled in Electric Wright Stuff and Codebusters

2021: **CASEF TEEM Category - 1st Award**

- Presented project through a poster board and interviews and earned a high enough score to win a 1st Award and win the CASEF TEEM category for the development of a tabletop braille-based communication device to bridge the deafblind communication gap

PJAS Region 4 + States - 1st Award

- Presented research in an oral presentation and received a score of above 4 / 5 to receive 1st Awards

CASEF Special Awards - Love Award for Science Communication Skills and IEEE Award

Science Olympiad Division B Invitationals, Regionals, and States - Medaled in Experimental Design and Circuit Lab (Team also placed)

***2020*:** **Capital Area Science and Engineering Fair (CASEF) Junior Grand Champion Second Runner-Up**

- 3rd place overall in CASEF Junior Division for developing a smart pillbox device for dementia patients with Arduino
- Earned Broadcom MASTERS nomination for placing in the top 10% of projects

CASEF TEEM Category - 1st Award

- Presented project through a poster board and interviews and earned a high enough score to win a 1st Award and win the CASEF TEEM category

Broadcom MASTERS - Nominated

- Received nomination for Broadcom MASTERS National Science Fair

PJAS Region 4 - 1st Award

- Presented research in an oral presentation and received a score of above 4 / 5 to receive 1st Award
- Qualified for PJAS States

PJAS States - 1st Award

- Presented research in an oral presentation and received a score of above 4 / 5 to receive 1st Award

CASEF Special Awards - IEEE and Lemelson Early Inventor Prize

Science Olympiad Division B Invitationals, Regionals, and States - Medaled in Elastic Launched Glider (Team also placed)

2019: **Acceptance into Institute of Creative Problem Solving For Gifted And Talented Students**

- Placed in top 0.1% in math of all students on Long Island in grade following an exam

PROJECTS

- **Cell Type by Gene Expression from MERFISH Data Visualizer and Data Analysis Tool**, *Summer 2024*
- **DORY: Wearable Memory Assistive Object Tracking And Retrieval Device For Dementia Using Machine Learning**, *2023 - 2024*
  Developed a wearable memory aid based on NEMO to increase independence among patients with Dementia and Alzheimer's and alleviate stress on caregivers by creating an out-of-the-way system to track the location of household objects using object recognition & natural language processing, room classification, and human-like directions.
- **NEMO: Wearable Memory Assistive Device for Dementia and Alzheimer's Patients Using Machine Learning Facial Recognition,** *2022-2023*
  Facial recognition assistant to increase social confidence among patients with Dementia and Alzheimer's using Python, RaspberryPi, Flutter (for app), and machine learning.
- **BraillEZ: Bridging the Deafblind Communication Gap,** *2020-2022*
  Developed a tabletop communication device with a refreshable braille display and keyboard for portable and quick conversational braille/text translation using Python, a RaspberryPi, and a solenoid-driven actuating mechanism.
- **RemindMEd: A Device to Remind When You Forget,** *2019-2020*
  Developed a smart reminding pillbox to help dementia patients adhere to medicine regimen using Arduino.

LEADERSHIP/COMMUNITY INVOLVEMENT

Programmer, Strategy Lead, Safety Captain, Back-up Coach of FRC Robotics Team 2539, *2021 - present*
(Strategy Lead + Safety Captain from 2022, 2023: Back-up Operator, 2024: Back-up Drive Coach)

- Program robot (Java) and dashboard (formerly React and Electron, now with Shuffleboard). Helped develop training workshops and trained new programmers.
- Oversee strategy and the strategy sub-team at competitions and during build season.
- Led the Engineering Inspiration team
- Ran the outreach program
- 2022: District Event Winner, District Event Finalist, District Championship Finalists, World Championship Finalists, Won 4 off-seasons
- 2023: District Event 2-Time Winner, District Championship Finalists, World Champion Milstein Division Finalists, girlPOWER Finalists, won remaining off-seasons

- 2024: District Event 2-Time Winner, Top 50 Worldwide by EPA, 3rd in World Championships Curie Division, District Event Engineering Inspiration Award)

Founder + President of Hershey High School Women in STEM, *2023 - present*

- Host women speakers from a variety of STEM careers
- Create a community to increase gender inclusivity in STEM
- Planning annual STEM Fair involving local professionals and high school STEM clubs

President of Hershey Community Youth Alliance, *2021 - present (VP: 2022)*

- Connecting Hershey High School and the Milton Hershey School through student exchanges and events

Senior Leader of Hershey Science Olympiad, *2019 - present (Senior Leader: 2024-25)*

- Competed and medaled in aviation events since 7th grade

Member + Vice President of Hershey Gay-Straight Alliance, *2022 - present (Secretary: 2022, VP: 2023)*
FIRST LEGO League Explore Team Master of the Piece Student Mentor, *2023*
Member of Math National Honors Society, *2022 - present*
Member of Spanish National Honors Society, *2023 - present*
Member of National Honors Society, *2023 - present*
Member & Outreach Chair of Tri-M Music National Honors Society, *2021 - present (Outreach Chair: 2024)*
Outreach Manager of Hershey Bands, *2022 - present*
Member, Outreach Manager, + Flute Section Leader for Hershey Trojan Marching Band, *2021 - present (Outreach Manager: 2022, Section Leader: 2023)*
Auditioned Member of PMEA District 7 Band on Flute, *2022, 2023*
Auditioned Member of DCMEA County Band on Flute, *2021, 2022, 2023*
Auditioned Member of Wind Symphony on Flute, *2021 - present*