# ETASH JHANJI

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## **SUMMARY STATEMENT**

Analytical and goal-oriented student with a strong academic record and a demonstrated passion for research. Proven ability to collaborate effectively in team environments and to drive innovative solutions reliably.

#### **EDUCATION**

## Fox Chapel Area High School

Pittsburgh, PA

High School Diploma

Sep. 2021 - Jun. 2025

- GPA: 4.49 (W), 4.0 (UW)
- National Honor Society

## Pennsylvania Governor's School for the Sciences @ CMU

Pittsburgh, PA Jun. 2024 – Jul. 2024

Summer Program

- One of 72 students selected from a pool of 524 applicants across Pennsylvania to attend
- Engaged in college-level courses in discrete math, computer science, special relativity, cellular cancer biology, organic chemistry, AI and ML, mathematical finance, and a computer science + AI laboratory
- Devised, researched, and presented a culminating research project on optimizing computational gameplay strategies in BlokusDuo using techniques including Minimax, MCTS (w/ CNNs), and PPO

## RESEARCH EXPERIENCE

Student Researcher Jun. 2023 – Aug. 2023

Hukriede Lab: Univ. of Pittsburgh Integrative Systems Biology

Pittsburgh, PA

- Complete extensive computational analysis of fluorescent microscopy images
- · Develop an innovative computation to analyze stain localization on nephron tubules using computer vision
- · Understand tissue structures of the kidneys and staining to work on data collection for a research publication

Student Observer Apr. 2021 – Jul. 2021

Yam's Lab: Univ. of Pittsburgh Dept. of Ophthalmology

Pittsburgh, PA

- Observed laboratory processes and equipment.
- Inspected results of a scratch wound assay to collect quantitative data for analysis and publication.

## VOLUNTEER EXPERIENCE

## Director of Media, Special Events and Enhancements Teams

Oct. 2023 - Present

Steel City Codes: Executive Branch

Remote

- · Manage social media for Steel City Codes, expanding media reach
- · Design promotional materials and merchandise for general use and special events
- · Expand the large set of Steel City Codes special events including hackathons and summer camps

## **Student Ambassador** Fox Chapel Area High School

May 2022 – Present

Pittsburgh, PA

- · Introduce incoming students to the high school
- Aid the hosting of events to familiarize students and parents with the school

#### ACTIVITIES

Treasurer

# Co-President

Aug. 2020 – Present

Science Fair Club

- Participate in local science fairs: Pennsylvania Junior Academy of Science and Pittsburgh Regional Science and Engineering Fair
- Organize ways to help other members navigate the paperwork and projects of a science fair
- President since 2023

Technology Student Association

Aug. 2021 – Present

- Design and build multiplex projects for competition on regional, state, and national level
  - Manage club funds for students to be able to participate and build projects
  - Treasurer since 2023

Secretary Aug. 2021 – Present

Desi Club

- Lead and volunteer to spread awareness about Asian and South Asian Cultures.
- Perform Indian dances (i.e. Bhangra) in each annual D.E.S.I./Multicultural Night
- · Part of the team that organized the first annual Multicultural Night, to include other cultural clubs
- Doubled attendance since the first year
- Secretary since August 2023, previously 'Event Planner' from August 2022 to 2023

Student Delegate Aug. 2021 – Present

Model United Nations

- Research, debate, and collaborate solutions to current events
- Earned 292 NSDA Points: Distinction Degree

## RELEVANT COURSEWORK/SCORES

| AP Computer Science A          | 5                        | May 2024  |
|--------------------------------|--------------------------|-----------|
| AP Biology                     | 5                        | May 2024  |
| AP Language and Composition    | 5                        | May 2024  |
| AP US History                  | 5                        | May 2024  |
| SAT                            | 1570: 800 Math, 770 EBRW | Oct. 2023 |
| AP Statistics                  | 5                        | May 2023  |
| AP World History: Modern       | 5                        | May 2023  |
| AP Computer Science Principles | 5                        | May 2022  |
|                                |                          |           |

## **TECHNICAL SKILLS**

Programming Languages: Python, Java, HTML/CSS/JS, R, SQL, LaTeX

Graphic Design: Adobe Illustrator, Adobe Photoshop, Inkscape, Linearity Curve (formerly Vectornator), Canva

Microsoft Office: Word, PowerPoint, Excel

## SOFT SKILLS

Problem Solving, Work Ethic, Attention to Detail, Communication, Teamwork

## HONORS AND AWARDS

|   | 1st Place: Regionals and States, Perfect Score (States)                             | Feb., May 2024                             |
|---|---|--|
|   | Project: Exploring and Applying Audio-Based Sentiment Analysis in Music             | PA Junior Academy of Science               |
|   | Coding State Champions  | Apr. 2024                                  |
| Only national qualifier in the state, challenge involved a theory test as well as timed challenges. |   | hallenges. PATSA                           |
|   | Technology Student Association Awards   | Jan. 2024, 2023                            |
|   | Dragster Design (1st), Webmaster (1st), Coding (2nd), Technology Problem Solving (1 | st) PATSA                                  |
|   | Best Position Paper   | Oct. 2023                                  |
|   | For paper detailing the stance of Bangladesh on gang violence and child soldiers.   | Pitt UCIS                                  |
|   | 1st Place: Regionals and States   | Feb., May 2023                             |
|   | Project: Automation of the Morphological Analysis of Stem Cells with AI             | PA Junior Academy of Science               |
|   | Powering Pittsburgh: 2nd Place  | Nov. 2022                                  |
|   | Crafted novel solutions to improving the energy cleanliness of Pittsburgh           | Pittsburgh Steelers and Shell Polymers     |
|   | Outstanding Position Paper  | Dec. 2021                                  |
|   | For a paper detailing positions in a Model EU diplomatic simulation.                | niv. of Pittsburgh European Studies Center |
|   | Powering Pittsburgh Winner  | Nov. 2021                                  |
|   | Developed an innovative plan to renewably power Acrisure Stadium                    | Pittsburgh Steelers and Shell Polymers     |

## **PUBLICATIONS**

**Jhanji, E.** Exploring and applying audio-based sentiment analysis in music (2024). *arXiv:2403.17379* [cs.SD]. https://doi.org/10.48550/arXiv.2403.17379.

Maggiore JC, Przepiorski A, Han H, **Jhanji E**, Streeter EC, McDaniels M, Hukriede NA. Loss of Histone Deacetylase 8 Enhances Proximal Tubule Acute Kidney Injury Repair. (2023). Manuscript in preparation.

Bressler A, Brown A, Frischmann J, Huang M, **Jhanji E**, Liu S. Blokus Duo: Using Deep Search Algorithms to Explore Turn-Based Game Strategy. (2024). Manuscript under review.