Shruti Badrish

Redmond, WA 98052 • https://shrutib.com/ • shrutibadrish@gmail.com

Brief Bio: Shruti Badrish is a junior at Redmond High School, with a GPA of 4.0. She is interested in STEM fields and has a passion for computer science and mathematics. Shruti has participated and won competitions in these areas, at regional, state, and national levels. She is the owner and founder of Stemity – a non-profit organization dedicated to fostering STEM interest in elementary and middle school students.

EDUCATION & CREDENTIALS

REDMOND HIGH SCHOOL, *Redmond, WA*

Graduation Year: **2024**

GPA: **4.0**

Important Courses and Clubs

- Redmond High School
    - AP Courses: Calculus AB, Computer Science A, Chemistry, Physics C: Mechanics, English Language & Composition, Calculus BC, Environmental Science
    - Clubs: Science Olympiad (board member, competitions coordinator), National Honor Society, Math Club, AI Club
    - Four years of world language (Spanish)
- Redmond Middle School
    - National Junior Honor Society (2019-2020)
- Extracurriculars
    - Washington Aerospace Scholars program (ongoing)

STANDARDIZED TESTS

- SAT (August 2022) Score: **1590** (800 math, 790 EBRW)
- PSAT (October 2022) Score: **1510** (760 math, 750 EBRW)
- AP Exams
    - Calculus AB, May 2022 – Score: **5**
    - AP Chemistry, May 2022 – Score: **5**
    - AP Computer Science A, May 2022 – Score: **5**
- PSAT (October 2021) Score: **1480** (760 math, 720 EBRW)
- SCAT (August 2020) Score: Quantitative **99**th percentile, Verbal **95**th percentile
    - Qualified into Advanced Center for Talented Youth (CTY) at Johns Hopkins University

SKILLS & CERTIFICATIONS

- Programming Languages: Java, Python, C, C++, and C#
- Website development using WordPress, HTML, CSS, and JavaScript
- Udemy
    - Game development using Unity Engine & C#
- Coursera
    - Algorithms (Part 1) - Princeton University
- Lean Launch (entrepreneurship workshop) at Microsoft Research, 2017

PUBLICATIONS

Shruti Badrish. WalkSmart – A New Machine Learning-Based Real-Time Gait Analysis Technique using Smartphones to Mitigate Ambulatory Fall Incidents. https://shrutib.com/papers/gait-based-fall-prevention.pdf

WORK EXPERIENCE

Owner and founder of Stemity, a non-profit organization dedicated to spreading interest in STEM to elementary and middle schoolers.

- Founded in 2020, conducted STEM-based competitions for charity (stemity.org)
- Expanded in 2021-22, conducted STEM-based interactive workshops (stemity.net)

VOLUNTEERING EXPERIENCE

- Counselor for Girls Rock Math, 2022
- Tutor for Essay Writing, North South Foundation, 2022
- Judge, Reflections Competition, Einstein Elementary, 2021-22
- Teaching Assistant (TA), Einstein Elementary, 2019-2022
- Facilitator for the Julia Robinson Mathematics Festival (JRMF), 2021
- Activity Volunteer, Einstein Elementary, 2019-2020
- Proctor, Math Challenge Masters Tournament, 2019

AWARDS & HONORS

Washington State Science and Engineering Fair:

- 2023: WalkSmart – A New Machine Learning-Based Real-Time Gait Analysis Technique using Smartphones to Mitigate Ambulatory Fall Incidents
    - Won 1st place in the "robotics and intelligent machines" category
    - Won U.S. Navy Office of Naval Research Naval Science Award

Science Olympiad

- 2022 State:
    - Individual – Chemistry Lab: 4th place, Code Analysis: 6th place
    - Team – 6th place
- 2022 Regionals:
    - Individual – Chemistry Lab: 3rd place, Code Analysis: 4th place, Astronomy: 3rd place
    - Team – 4th place
- 2021 State:
    - Individual – Forensics: 8th place, Codebusters: 6th place, Code Analysis: 10th place
- 2021 Regionals:
    - Individual – Code Analysis: 10th place, Codebusters: 6th place
- 2019 State:
    - Individual – Herpetology: 2nd place, Road Scholar: 3rd place, Game On: 1st place, Water Quality: 8th place
    - Team – 2nd place
- 2019 Regionals:
    - Individual – Herpetology: 6th place, Road Scholar: 1st place, Game On: 1st place, Water Quality: 4th place
    - Team – 1st place
- 2018 Regionals:

- Individual – Meteorology: 3rd place, Ecology: 5th place, Wright Stuff: 1st place

You Be The Chemist (YBTC)

- 2020: 1st place in state

National Science Bowl (NSB)

- 2020: Represented Redmond Middle School in the regional tournament

AMC Series

- 2022 Fall AMC 12B Score: 85.5
  - Qualified for 2023 AIME I
- 2021 Fall AMC 10A Score: 96
  - Qualified for 2022 AIME II
- 2017 AMC 8 Score: 19 (honor roll)

USACO

- Gold level

MATHCOUNTS

- 2020 Chapter: 6th place (team)

North South Foundation

- 2022: Computer Science – 9th place (USA Nationals)

- 2021: Essay Writing – 1st place (WA State)

Reflections (Literature Category)

- 2022: LWSD Award of Excellence for *This is How You Change a World* (advanced to state)

- 2021: LWSD Award of Excellence for *Face of the Future* (advanced to state)

- 2020: LWSD Award of Merit for *Concealment* (advanced to state)

Washington State PTA Game Development Competition

- 2020-21: 1st place

Computing For All

- 2019: 1st place (team competition)