Shruti Badrish

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Brief Bio: Shruti Badrish is a senior 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. 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, U.S. Government, Biology, Statistics, Psychology
  - 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**
  - Chemistry, May 2022 – Score: **5**
  - Computer Science A, May 2022 – Score: **5**
  - Physics C: Mechanics, May 2023 – Score: **5**
  - English Language & Composition, May 2023 – Score: **5**
  - Calculus BC, May 2023 – Score: **5**
  - Environmental Science, May 2023 – Score: **5**
- 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

- Soft Skills: Communication, teamwork, organization, leadership, problem solving, time management.
- Languages: English, Hindi, Spanish, Tamil

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/INTERNSHIP 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)

Paid research internship with the Ubiquitous Computing lab at the University of Washington (2023)

- Project Title: In Person Conversation Analysis

Grader at Kumon (2023-present)

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

U.S. National Chemistry Olympiad:

- Qualified for Nationals

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

- 2023: Computer Science – 1st place (WA State), Public Speaking – 1st place (WA State)

- 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)