Shruti Badrish

UNIVERSITY OF WASHINGTON
SEATTLE, WA

Objective

Shruti Badrish is a freshman at the University of Washington, studying Computer Science. 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

2023-2024	**Bellevue College (Running Start)**
	Courses: Calculus III, Calculus IV
2020-2024	**Redmond High School**
	GPA: 4.0

AP Courses: Calculus AB, Computer Science A, Chemistry, Physics C: Mechanics, English Language & Composition, Calculus BC, Environmental Science, U.S. Government, Biology, Statistics, Psychology

Honors Courses: Algebra 2, Biology, Art 1, Pre-Calculus, Spanish 2, Spanish 4, English 12

Clubs: Science Olympiad (competitions coordinator), Video Game Design (co-president), National Honor Society, Math Club, AI Club, Art Club, Computer Science Club

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Standardized Tests

Aug 2022	**SAT:** 1590 (800 math, 790 EBRW)
Oct 2022	**PSAT:** 1510 (760 math, 750 EBRW)
May 2023	**AP Calculus BC:** 5
	AP Environmental Science: 5
	AP English Language & Composition: 5
	AP Physics C: Mechanics: 5
May 2022	**AP Chemistry:** 5
	AP Computer Science A: 5
	AP Calculus AB: 5

Research Experience & Projects	Aug-Oct 2023	**TrashPic** • Project Name: TrashPic • Description: A machine learning model and smartphone app to classify pictures of items as recyclable or waste, in order to streamline recycling. • Second Place across Washington's 1st Congressional District in Congressional App Challenge.
	Jun-Aug 2023	**In Person Conversation Analysis** • Project Name: In Person Conversation Analysis • Description: A web app that keeps track of different speakers and measures conversation quality. • Name of University: University of Washington • Lab: Ubiquitous Computing Lab • Position: Paid research intern

	Sep-Mar 2023	**WalkSmart**
		• Project Name: WalkSmart
		• Description: A new machine learning-based real-time gait analysis technique using smartphones to mitigate ambulatory fall incidents.
		• Presented at Washington State Science and Engineering Fair (WSSEF)
		    o Won First Place
		    o Won U.S. Navy Office of Naval Research Naval Science Award
		    o National Finalist at National STEM Challenge

	Feb-Apr 2022	**#trashtag** • Project Name: #trashtag • Description: A video game that emulates the cleaning of a littered beach, designed to spread awareness about pollution and encourage the player to clean a beach in real life.
	Feb-Apr 2021	**The Lost Island** • Project Name: The Lost Island • Description: A fantasy text-adventure game in which the player must defeat a dragon terrorizing an island. • Submitted to the Washington State PTA Game Development Competition o Won first place in the "Board/Text/Card Game" category
Work Experience	2023-present	**Kumon,** Redmond, WA **Center Assistant** • Grader • Early Learners Assistant
Volunteer Experience	2020-present	**Owner and Founder of Stemity, a non-profit for education** • Founded in 2020, conducted STEM-based competitions for charity (stemity.org) • Expanded in 2021-22, conducted STEM-based interactive workshops (stemity.net)
	2022	**Counselor for Girls Rock Math**

	2022	**Tutor for Essay Writing at North South Foundation**
	2022	**Teaching Assistant (TA) at Einstein Elementary**
	2022	**Facilitator for the Julia Robinson Mathematics Festival (JRMF)**
	2019-2020	**Teaching Assistant (TA) at Einstein Elementary**
	2019-2020	**Activity Volunteer at Einstein Elementary**
	2019	**Proctor, Math Challenge Masters Tournament**

Awards & Honors	2024	**NCWIT Aspirations in Computing:** National Honorable Mention, Seattle and Western Washington Affiliate Winner
	2023	**National STEM Challenge National Finalist**
	2023	**Congressional App Challenge:** 2nd place in Washington's First Congressional District
	2023	**National Merit Scholarship (NMSC) Finalist**
	2023	**AP Scholar with Distinction Award**
	2023	**U.S. National Chemistry Olympiad (USNCO):** State finalist, advanced to Nationals
	2023	**Washington State Science and Engineering Fair:** 1st place, U.S. Navy Office of Naval Research Naval Science Award
	2023	**U.S.A. Computing Olympiad (USACO):** Gold Division
	2023	**North South Foundation:**
		• State: 1st place (Computer Science), 1st place (Public Speaking)
	2022-2023	**Fall AMC 12B Score: 85.5 – Qualified for 2023 AIME I**
	2022	**AP Scholar Award**
	2022	**North South Foundation:**
		• Nationals: 9th place (Computer Science)
	2022	**National Novel Writing Month (NaNoWriMo) Challenge Winner**
	2021-2022	**Fall AMC 10A Score: 96 – Qualified for 2022 AIME II**
	2020	**Washington State PTA Game Development Competition:** 1st place in "Board/Text/Card Game" category
		Science Olympiad:
	2023	• State: 3rd (Astronomy), 5th (Team)
	2022	• State: 4th (Chemistry Lab), 6th (Team)
	2021	• State: 6th (Codebusters)
	2019	• State: 2nd (Herpetology), 3rd (Road Scholar), 1st (Game On), 2nd (Team)
		Reflections:
	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)
2020		**You Be The Chemist:** State champion
2020		**MATHCOUNTS:** 6th in chapter (team)
2019		**Computing For All Computer Science Competiton:** 1st place (team)

Publications	2023	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

Skills & Certifications	Programming Languages	**Java, Python, C, C++, C#, HTML/CSS/JS, React jsx**
	Udemy	**Game Development using Unity Engine & C#** **Learn Python & Ethical Hacking From Scratch**
	Coursera	**Algorithms (by Dr. Robert Sedgewick, Princeton University)**
	MIT BeaverWorks	**Python** **Version Control with Git** **Autonomous Cognitive Assistance (CogWorks)** **Remote Sensing for Disaster Response**

Languages	English	Native proficiency
	Tamil	Native proficiency
	Spanish	Working proficiency
	Sanskrit	Working proficiency
	Hindi	Working proficiency