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Shruti Badrish

COMPUTER SCIENCE | UNIVERSITY OF WASHINGTON | SEATTLE, WA

TECHNICAL SKILLS

Programming Languages: Java, Python, C, C++, C#, R, HTML/CSS/JS, SQL, Kotlin
Frameworks / Libraries: Flask, pandas, numpy, scikit-learn, matplotlib, TensorFlow / Keras
Tools: Excel, React, Git, Android Studio, Unity, command line, LaTeX
Skills: Penetration Testing, Game Development, Machine Learning, Data Science, App/Web Development

EDUCATION

University of Washington – Seattle | *2024 – 2028* | Major: Computer Science | GPA: 4.0
Relevant Courses: Software Design, Online Security, System and Software Tools, Data Science, Foundations of Computing, Data Structures, HW/SW Interface

Bellevue College (Running Start) | *2023 – 2024* | GPA: 4.0 | Courses: Calculus III, Calculus IV

Redmond High School | *2020 – 2024* | GPA: 4.0

SELECTED PROJECTS / AWARDS

Husky Satellite Lab | *2024-now*
- Collaborating to develop a CubeSat, HuskySat-2. HS-2 will be a technology demonstrator for cislunar and deep space navigation.
- Specifically working with the Star Tracker subsystem to determine satellite position and orientation by taking and processing photos of the stars.
- Uses machine learning, linear algebra, and algorithm design for image processing.

NCWIT Aspirations in Computing | *2024*
Awards: National Honorable Mention, Seattle and Western Washington Affiliate Winner

WalkSmart | *2023*
- Collected and analyzed sensor data on steady and unsteady walking patterns.
- Trained an LSTM machine learning model (using Keras) that classifies gait patterns as steady or unsteady with a 98% accuracy.
- Integrated this model into a smartphone app.
- Crafted a technical paper on this work.

Awards: First Place at Washington State Science and Engineering Fair, U.S. Navy Office of Naval Research Naval Science Award, National STEM Challenge National Finalist

In Person Conversation Analysis | *2023*
- Built a Python program that diarizes a recording of a conversation and computes metrics such as division of airtime or average sentiment using machine learning.
- Developed a React frontend that connects with the backend via Flask.

Lab: Ubiquitous Computing Lab, University of Washington
Position: Paid research intern

TrashPic | *2023*
- Developed a machine learning model to classify pictures of items as recyclable or waste.
- Used Android Studio to build a smartphone app with which users can take pictures of items to determine whether they are recyclable.

Awards: Second Place across Washington's 1st Congressional District in Congressional App Challenge

The Lost Island | *2021*
- Developed a fantasy text-adventure game using Unity in which the player must defeat a dragon terrorizing an island.

Awards: First place at Washington State PTA Game Development Competition

EXPERIENCE

Seattle Times | *2024-now* | Position: Student Writer

Women in Cybersecurity (WiCyS) | *2024-now* | Position: Freshman Representative
- Help plan lessons, network with guest speakers, and outreach on social media for the WiCyS club at UW.

Ubiquitous Computing Lab @ UW | *2023* | Position: Paid Research Intern

Kumon | *2023-2024* | Position: Center Assistant
- Taught English and math to children.
- Graded classwork, homework, and tests.

Stemity | *2020-2024* | Position: Owner and founder
- Founded a registered non-profit for education.
- Fundraised for COVID-19 relief via STEM contests.
- Provided regular free STEM workshops for children.