Arfana Sham

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GitHub: github.com/arfana017 • Portfolio: arfana017.github.io/Arfana-Sham-Website

Education

Associate of Science, Engineering	To be Completed: June 2026
Associate in Science for Transfer, Mathematics	To be Completed: June 2026
Associate of Science, Computer Science	To be Completed: June 2026
Santa Monica College, Santa Monica, California	GPA: 3.8

Relevant Coursework: Linear Algebra; C++ Programming; Data Structures with C++; PHP Programming; Physics: Mechanics with Lab

Campus Involvement: Programs (STEM MAS, Scholars); Student Clubs (Girls Who Code College Loop, Engineering, Corsair AI)

Skills

Back-End Development: Python (OOP, Flask, API Interaction, BeautifulSoup, File Handling with JSON, CSV, Pandas, Matplotlib, NumPy, Scikit-Learn, Plotly, Seaborn, Virtualenv, Kaggle Integration), C++ (OOP, Pointers, Call-by-Reference, STL, File I/O), PHP (Web Development, Form Handling, Sessions & Cookies, Error Handling, OOP), MySQL (Joins, Aggregation, Subqueries, Transactions, Stored Procedures, Triggers)

Data Science & Machine Learning: Python (Pandas, Matplotlib, NumPy, Scikit-Learn, Plotly, Seaborn)

Front-End Development: JavaScript (DOM, Event Handling, Async/Await, Fetch API, jQuery, Three.js, React), HTML/CSS (HTML5, Tailwind, Bootstrap)

Engineering & Lab: Oscilloscopes, Multimeters, Sensors, Power Supplies, Calipers, Light Microscope; Rotational and Projectile Motion Setup; Scientific Report Writing

Languages: Tamil – Proficient

Programming/Computational Experience

Portfolio Website Template   December 2024 - Present

- Design and develop a responsive website allowing viewers to see an individual's technical skills, projects, and experience.
- Use HTML, CSS (Tailwind/Bootstrap), and JavaScript to build a fully responsive website with desktop and multi-browser compatibility.
- Integrate React JavaScript for dynamic content rendering and enhanced interactivity
- Research deployment of the website on GitHub Pages.
- Explore backend integration using Node.js, Flask to implement dynamic features such as contact forms and project filtering.

Bowling Game   February 2024
- Designed an interactive virtual bowling game using HTML, CSS, and JavaScript, incorporating real-time 3D rendering with Three.js for realistic ball movement and pin interactions.
- Implemented physics mechanics simulations to model ball movement, strikes, and spares.
- Used JavaScript to create a dynamic scoreboard, which tracked scores in real-time.
- Utilized Node.js for server-side functionality, managing game state and player data.

Grocery Shopping Interface

August 2023
- Built an interactive shopping cart system with PHP sessions and MySQL for inventory control.
- Ensured secure transactions and dynamic content display using server-side scripting and queries.

Research Experience

Semiconductor Chip Training Intern   September 2024 - May 2025

Advanced Technology Technician Training, Micro Nano Technology Education Center, Pasadena, California
- Completed 4 VR simulations that focused on visualization, and manipulation, and analyzation process of complex semiconductor structures.

Coordinator and Member   July 2023 - August 2024

Emerging Scientist Program, Arumugaswami Labs, UCLA, Los Angeles, California
- Conducted research on Dissociative Identity Disorder by analyzing brain CT scans and reviewing literature to examine the condition's pathophysiology.
- Assisted 20+ students during weekly office hours with assignments and their respective presentations, providing constructive feedback.
- Organized documents for the new cohort of students by assembling structured research packets.

Participant   January 2025 - March 2025

NASA Community College of Aerospace Scholars (NCAS) Mission 1: Discover (Remote)

National Aeronautics and Space Administration, Los Angeles, California
- Gained exposure to NASA career pathways and hands-on experience with space exploration concepts.
- Designed an informative infographic on the Space Communication and Navigation Program using data visualization and concise scientific communication.

Leadership and Involvement

ICC Delegate   August 2024 - Present

Girls Who Code College Loop Student Club, Santa Monica, California

- Serve as the club's representative in Inter-Club Council (ICC) meetings, advocating for resources and support.
- Lead a JavaScript workshop, centered on base coding knowledge and its applications.
- Organized and coordinated 7+ events where students can learn programming languages taught by club board members and industry professionals.

Work Experience

Volunteer/Server   January 2022 - Present

Sham India's Oven

SITHEEK INC, Los Angeles, California

- Contribute to the day-to-day operations of a family-owned restaurant, balancing customer service with multitasking in a fast-paced environment.
- Facilitate clear communication between kitchen staff and guests to ensure accurate and timely order fulfillment.
- Address customer concerns and special requests with professionalism, maintaining high satisfaction during peak hours.
- Support overall team efficiency by anticipating needs and adapting quickly to dynamic service demands.