# Shivani Tiwari

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## **EDUCATION**

University of Waterloo Waterloo, Ontario

Bachelor of Software Engineering, Dual Mathematics and Engineering

Expected Graduation, May 2029

- o GPA: 3.8
- o Related Coursework: Linear Algebra, Calculus, Algebraic Systems of Mathematics, Object-Oriented Programming,
- o Scholarships: University of Waterloo President's Scholarship of Distinction

#### **SKILLS**

**Programming:** C++, C, Python, JavaScript, HTML/CSS, SQL, Node.js, React.js **Tools:** Git, Linux, Eclipse, AWS, Bootstrap, Agil, MS Office, VS code, VPS

#### **EXPERIENCE**

AMLE Mississauga, Ontario

Product Design Intern

August 2023 – Dec 2023

- Led a software project through the SDLC using the Waterfall model, ensuring on-time delivery of all phases.
- Improved stakeholder communication with **UML** diagrams and structured documentation.
- Delivered a fully functional product, meeting 100% of requirements and increasing development efficiency by 20%.

Udemy Mississauga, Ontario

Web Developer Intern

Jan 2024– April 2024

- Developed a dynamic web application using HTML, CSS, and JavaScript, increasing user engagement by 30% through improved client data management and UI enhancements.
- Designed responsive web pages with optimized performance and integrated JavaScript form validation, reducing bounce rates by 15% and submission errors by 25%.

YMCA Mississauga, Ontario

Coding Teacher Assistant

June 2022 – August 2022

- Taught programming fundamentals to 10 students using Python block coding on Scratch and sensor integration.
- Achieved a 50% increase in class engagement by fostering teamwork and collaborative projects Demonstrated leadership and communication skills to inspire students' problem-solving abilities.

### **PROJECTS**

## Pulse Match – Real-Time Compatibility Analyzer - (WIE Hackathon Finalist)

Waterloo, Ontario

Team Member

Oct 2024 - Dec 2024

- Developed a compatibility monitoring system analyzing heart rate and conversation audio, enabling real-time chemistry analysis between two people.
- Engineered secure back-end systems and implemented data integration using **Raspberry Pi** and web technologies, achieving 95% accurate results.

# **Planetary Orbit Simulation**

Waterloo, Ontario

Individual Work

Nov 2018 - Jan 2019

- Developed a **Python**-based simulation of planetary orbits around the Sun, incorporating real astronomical values and gravitational forces to model accurate elliptical trajectories.
- Applied movement physics and Newton's law of gravitation to simulate realistic interactions between celestial bodies in a visually dynamic system.

Weather App Waterloo, Ontario

- Built a responsive weather application using **HTML**, **CSS**, and **JavaScript**, integrating the OpenWeatherMap API to display real-time weather data (temperature, condition, humidity, wind speed) for user-searched cities.
- Implemented a search functionality allowing users to retrieve weather information for over 200,000 global cities with seamless API interaction.

#### **ACTIVITIES AND LEADERSHIP**

YMCA Toronto, Ontario

Youth Mentor Sep 2022 – June 2023

• Led mentorship programs for 100+ youth, fostering **leadership** and **teamwork**, which increased civic participation by 20%. Inspired **ownership** among participants, boosting project involvement rates by 15%.