Tushant Kaura

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Education

Dalhousie University — Halifax, NS
Bachelor of Applied Computer Science — *Sept. 2024 – Apr 2028*

Woodlawn High School — Dartmouth, NS
High School Diploma — *Sept. 2023 – July 2024*

Experience

Web Developer Intern — Apr 2025 – Present
Futura Holding Group — *Halifax, NS*

- Develops responsive web applications using React, HTML, CSS, and JavaScript.
- Implements interactive UI components and optimizes frontend performance.
- Collaborates on full-stack development, integrating REST APIs and backend services.
- Ensures cross-browser compatibility and accessibility in web applications.

Lead Research Mentor — STEM Inclusion — Apr 2025 – Present
CISE-Atlantic — *Halifax, NS*

- Mentors students from diverse backgrounds in conducting physics-based research, fostering equity and curiosity in STEM education.
- Leads collaborative research teams in designing and analyzing experiments, promoting inclusive participation in scientific inquiry.
- Develops interactive web tools and educational resources using React, HTML, CSS, and JavaScript to support STEM outreach.

Undergraduate Research and Development Assistant — Nov 2024 – Present
Vertex Labs, Dalhousie University — *Halifax, NS*

- Researching VR and HCI at Dalhousie University's VERTEX Lab, focusing on cognitive processes and user perception in 3D environments.
- Developing intuitive, performance-enhancing interfaces to improve user interaction and experience.
- Passionate about bridging cutting-edge technology with user-centered design through multidisciplinary collaboration.

Research Assistant and Software Developer — Jan 2025 – Present
Persuasive Computing Lab, Dalhousie University — *Halifax, NS*

- Specializes in designing persuasive and behavior change systems using user-centered approaches at Dalhousie University's Persuasive Computing Lab.
- Develops interactive technologies to empower underserved populations, promoting mental health, safety, environmental sustainability, and community well-being.
- Employs adaptive and intelligent system design to address real-life challenges and generate meaningful, positive change.

Research Assistant and Data Analyst — Dec 2024 – Apr 2025
Dalhousie University — *Halifax, NS*

- Focused on streamlining data organization to enhance research efficiency and standardize data collection methods.
- Utilizing advanced analytical tools to convert raw data into actionable insights for in-depth analysis.
- Driving improved decision-making and operational efficiency by implementing robust data analysis frameworks.

Course Representative - CSCI 1120 — Jan 2025 – Apr 2025
Dalhousie University — *Halifax, NS*

- Acted as a liaison between students and faculty, addressing concerns and ensuring effective communication.
- Organized study sessions and peer support initiatives to enhance student learning outcomes.
- Collaborated with faculty to improve course structure and student engagement strategies.

Projects

AR Adventure Game | *Python, Flask, React, PostgreSQL, PyCharm* Feb 2025

- Cross-Platform AR Development: Utilized Unity 3D with AR Foundation to build a seamless, cross-platform augmented reality experience.
- Robust Spatial Tracking: Integrated ARKit and ARCore for accurate spatial mapping and environment interaction, ensuring precise AR object placement.
- Enhanced Immersive Interaction: Leveraged Vuforia for advanced image and object recognition, enabling dynamic, interactive game mechanics within the AR environment.

Weather App | *Weather API, Python, Maven, TravisCI, Git, Java* Jan 2025

- Comprehensive Weather Insights: Developed a sleek, user-friendly weather app that provides real-time weather updates, a 5-day forecast, air quality index (AQI), sunrise/sunset times, and hourly forecasts.
- Robust Tech Stack: Built using HTML, CSS, and JavaScript, with OpenWeather API for real-time data fetching, Moment.js for time formatting, and FontAwesome Boxicons for intuitive UI design.
- Future Enhancements Deployment: Plans to improve UI/UX, integrate additional meteorological data (UV index, historical trends), and deploy globally for widespread accessibility.

Technical Skills

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, R
Frameworks: React, Node.js, WordPress, FastAPI
Developer Tools: Git, TravisCI, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: Mediapipe, pandas, NumPy, Matplotlib, CV2

Scholarships & Awards

Entrance Scholarship 2024
Awarded $25,000 for Academic and Extracurricular Excellence *Dalhousie University*

Most Innovative Award 2024
Recognized for Creativity and Technical Excellence *Global Game Jam*