

Shivam Desai

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PROFESSIONAL EXPERIENCE

Student Organization for Aerospace Research (SOAR)

Calgary, Alberta

Avionics Software Developer

Sept 2022 – Present

- Gained knowledge on developing modular software in C++ for an experimental hybrid rocket within a highly collaborative environment
- Developed a wrapper for freeRTOS software timers that allows users to utilize and manipulate these timers
- Tested heavy duty servo in main engine valve, using STM32 microcontroller, for functionality and data such as resting and maximum current draw, approximate turning time and durability
- Utilized SOLIDWORKS and GrabCAD to design and model components and assemblies for the avionics bay

Electrical and Software Student Engineering Society (ZOO)

Calgary, Alberta

Webmaster

Jun 2022 – Present

- Conduct regular maintenance and redesign on the ZOO website such as updating or adding website elements using HTML, CSS and a REACT framework
- Designed, produced and marketed the ZOO keychains using technologies like SOLIDWORKS and Shopify
- Working on design and creation of a new merch website using languages and frameworks such as Figma, HTML, CSS, JavaScript, REACT and Bootstrap5
- Assisting in organizing various events such, tech fairs, workshops, and trips to conferences such as CUSEC

Schulich Rover

Calgary, Alberta

Software Team

Apr 2022 – Dec 2022

- Gained knowledge on developing software using robot operating system (ROS), Arduino, JavaScript, etc., for a rover that participated in Canadian International Rover Challenge
- Successfully transmitted inertial measurement unit (IMU) data to a REACT display using tools and libraries such as Arduino, Rosbridge_Server and Rosserial
- Used a Phidgets IMU to implement similar sensor data collection system as above but using JavaScript and ROSLIB library

EDUCATION

University of Calgary, Schulich School of Engineering

Calgary, Alberta

Bachelor of Science in Software Engineering, Minor in Mechatronics

Sept 2021 – Present

- **Cumulative GPA:** 3.63 / 4.00
- **Relevant Courses:** Fundamentals of Python, C/C++ and SQL programming, Linear Algebra, Calculus
- **Current Relevant Courses:** Object Oriented Principles (Java), Full Stack Web Development (REACT, AWS, Terraform), Data Structures and Algorithms (Python, Java)

EXTRA CURRICULAR/AWARDS

Engineering Leadership Program

- Participated in workshops to help improve leadership, teamworking, communication and several other skills
- Attended a leadership conference to hear from professionals and panelists on improving leadership skills and adapting to challenges

Skills

- **Language Skills:** English, French, Gujarati
- **Technical Skills:** Fusion 360, SolidWorks, Figma, Arduino, STM32, MySQL, Git
- **Interests:** Golf, Cricket, Cooking, AI & Machine Learning, SOLIDWORKS