**Raghav Sharma**

587-568-1879 | rs435ma@gmail.com | [LinkedIn Profile](https://www.linkedin.com/in/raghav-sharma-3a54b0199/) | [GitHub Profile](https://github.com/rraghavssharma)

**Education**

**University of Alberta**2nd year, Class of 2025

*Computer Engineering, BSc* 3 of 8 Academic terms completed

Cumulative GPA: 3.4/4.0

**Relevant Courses**: Tangible Computing in Python and C/C++, Digital Logic Design, Electrical Circuits, Signal processing, Algorithms, and data structures

**Technical Skills**

**Programming Languages**: Python, C/C++, JavaScript, HTML, CSS

**Technologies**: Git, Excel/Sheets, Arduino

**Miscellaneous:** PyCharm, VS code, Atom, Adobe Premiere Pro

**Leadership/Volunteer/Research Experience**

**Dean’s Research Award January 2023 - May 2023**

* Mentored by a Particle Physicist to develop an algorithm in Python that models a magnetic spectrometer which can manipulate an incoming electron beam based on the input magnetic field, speed of incoming beam, and various other parameters
* The path of the electron beam is determined by the dispersion relation of the energy vs. the position of the electron using the Finite Differencing method and the Lorenz Force Law
* Designing and Modelling the physical spectrometer using AutoCAD software

**University of Alberta Hyperloop Club,** *Electrical/Software Team member* **September 2022 –**

* Worked with a team of 5 members to engineer a specialized user interface to send commands and fetch telemetry data from the pod, software was developed in Python using the PyQt toolkit
* Developed a UDP system in Python such that the pod’s comput­­er could receive instructions wirelessly reducing/minimizing latency to 160 microseconds
* Designed a PCB that housed CAN-bus Internet Protocol which allowed the Pod to send data from various on-board sensors to a host monitoring computer

**Personal Projects**

**Differential Equations Course (on YouTube):** [**Differential Equations Complete Course**](https://www.youtube.com/watch?v=3Gp_NznwnBk&list=PLqLVN36jkOlyT90stZgCCGrzl-8CmhV-3&ab_channel=RaghavDograSharma)  **December 2022 –**

* Created a quality video lecture series on YouTube pertaining to the Differential Equations course
* Developed Methods for how to effectively break down advanced mathematical concepts into digestible bite sized chunks of information in a format that is easy to understand

**Dog Classifier Website (Hackathon Project):** [**Pawggers GitHub Repository**](https://github.com/nopunindented/Pawggerss)**,** [**Pawggers Website**](http://pawggers.info/) **November 2022**

* Designed a website designed for Dog owners to be given notifications for when to feed, walk their dog
* Created an Account user login system in JavaScript where users could login and have their preferences saved
* Integrated several files of software written in multiple languages such as JavaScript, Python, and C# that were written by multiple engineers to develop a cohesive website­

**Personal Website:** [**raghav-sharma.com**](https://raghav-sharma.com/) **September 2022**

* Implemented a shifting rainbow animated background using only vanilla CSS
* made the webpage responsive by using a CSS library *Skeleton*

**Work Experience**

**Barbecue Country** **May 2022 – August 2022**

*Assembly Technician*

* Assembled and tested commercial and residential Barbecues, fireplaces, and heaters with other co-workers in a timely manner while adhering to safety guidelines
* soldered new motherboards and sensors onto existing units that required repairs­­

Performed quality and inventory checks with other co-workers on merchandise, reporting any inconsistencies or problems