



Institute for Aerospace Studies
UNIVERSITY OF TORONTO

Job Opportunity
Institute for Aerospace Studies Outreach Program
Web Interface Designer/Programmer

The University of Toronto Institute for Aerospace Studies currently runs an outreach program with a high school serving Indigenous students that involves designing, building and flying a quadrotor drone. Because of COVID, this is being transformed from an in-person program to fully online. Part of the online program will be a web-based virtual drone design / build simulator. We are looking for an energetic student with knowledge of web interface design and programming to work on this project.

The user interface will serve as the front end for the drone design and build process. It will allow users to select drone components from a database of potential options. Once enough selections have been made, the interface will connect to a physics backend which will determine the performance of the collection of parts and compare the performance to mission requirements. The interface will then report the results to the user. Critically, the user interface must be very user-friendly and appeal to high school students.

The ideal candidate for this position will have experience writing client-side JavaScript programs with HTML5. Additional very useful skills include knowledge of CSS and Angular JS. WebGL and WebAssembly may also be helpful. Java Swing, Qt and Electron will not be used on this project, but exposure to these will provide valuable experience. It is expected that the project will require 8-10 hours of work per week from the beginning of November 2020 until the middle of February 2021, and may continue longer. The wage is \$25/hour.

For information or to submit a cover letter and CV by October 30, please contact Prof Craig Steeves csteeves@utias.utoronto.ca.