

# Brielle Chenier

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## EXPERIENCE

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- **Solar Car Mechanical Team Member** **Waterloo, ON**  
*University of Waterloo Solar Car Design Team* *September 2020 - Present*
  - Designed tools to aide car manufacturing and increase efficiency during assembly and competition as well as a model car for over 15 sponsors using Solidworks
  - Assembled carbon fiber and nomex to create four different layups for car structure and bottom panel
  - Learned about engineering techniques for welding and built welding jigs for car main frame which will support 4 passengers
- **Team Captain, Robot Lead, and Outreach Lead** **Bellevue, USA**  
*FIRST Robotics, Robototes Team 2412* *September 2016 - June 2020*
  - Led team meetings for 60 member team and oversaw 150lb robot build and integration, involved ordering all necessary parts and ensuring sub team leads effectively delegated tasks
  - Designed 2019 climb system to lift robot 45cm using Solidworks and directed 10 team members to build and assemble, system was 80% effective at district competition, helping us become Quarter Finalists at the 2019 World Championships
  - Planned and ran 30 STEM outreach events resulting in over 1,000 team volunteer hours per year, launched a robotics summer camp for students in grades 3-5 all of who had an increased interest in STEM after attending
- **Classroom Aide and Science Educator in Training** **Seattle, USA**  
*Pacific Science Center* *Summer 2018, 2019*
  - Taught STEM lessons to over 150 students in grades K-8, covered: programming fundamentals, robotics and science
  - Increased communication skills by engaging struggling campers and enabling them to complete activities

## PROJECTS

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- **Package Pick Up System and Adjustable Camera Mount**  
*Waterloo Aerial Robotics Group* *September 2020 - Present*
  - Designed and fabricated a mechanism using servos and micro-controllers to pick up 4 in packages
  - Developed a 2 axis camera stabilizer for a GoPro to be used in Unmanned Systems Canada Competition
  - Programmed an arduino controlled arm to teach new members about PID control and create an interactive onboarding
- **Uni Assist - University Program Comparison Tool**  
*She Hacks 2021 - 36 Hour Hackathon* *January 2021*
  - Developed front-end UI with React and implemented search and storage features for over 30 university programs
  - Hosted website back-end with Google Cloud Functions and accessed data via HTTP requests

## SKILLS LIST

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- **Mechanical Design:** Certified Solidworks Professional (CSWP), AutoCAD, 3D printing
- **Programming:** Python, C++, Git, Java, HTML/CSS and Javascript
- **Soft Skills:** Leadership, Communication, Teamwork and Collaboration
- **Languages:** English and French
- **Work:** Eligible to work in the United States and Canada

## EDUCATION

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- **University of Waterloo**  
*Candidate for BAsC in Mechatronics Engineering* *2020-2025*  
Engineering Society Winter 2021 Educational Outreach Director  
President's Scholarship of Distinction

## ACHIEVEMENTS AND INTERESTS

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- **Interests:** Rock Climbing, Basketball, and Music (Oboe and Flute)
- **Accomplishments:** High School Engineering Faculty Award Winner, FIRST Robotics Dean's List Semi-Finalist and Over 500 Volunteer Hours primarily in STEM Outreach