YiLin Liu

3rd Year Engineering Physics  
*Energetic, Dedicated, Organized*

# Skills Summary

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| --- | --- | --- | --- |
| Mechanical | Programming | Electronics | Others |
| *SolidWorks*  *OnShape*  Experience with Lathes, Mills, Drill presses, and standard machining tools.  Rapid Prototyping (3D printer, laser cutter, water jetting) | C++  Java  R  MATLAB | Oscilloscope  Multimeter  Soldering  Circuit Analysis and Debugging  Signal and systems analysis | Mandarin  Event planning |

# Technical Projects/ Experiences

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| --- | --- |
| **NRC-DAC (Data Analysis Center)**  *CO-OP Student* | **Feb 2017-May 2017** |
| * Explored web APIs (Facebook, Twitter, Google, etc.) through R packages to evaluate usefulness for data collection * Used Markdown and git to document summaries and key findings * Standardized raw addresses, visualized density clusters and scrapped data from the web for industrial projects | |
| **ENPH Summer Robot Course** | **May 2017-August 2017** |
| * **Scored 1st place** racing a fully autonomous robot * Designed claw, zipline delivery system, and chassis using *OnShape* and manufactured using 3D printer, laser cutter and water jetting * Implemented finite state machine using Arduino for robot firmware resulting in robot scoring perfectly in every run during competition * Constructed and maintained the 2nd working H-bridge for our robot | |
| **SUBC (UBC’s Submarine Team)**  *Sub-team Co-Lead* | **Sep 2016-Present** |
| * Manage testing of aluminum internal frame to improve mechanical stability and resolve accessibility issues of the hull.      * Design and testing of propellers as part of the propellers team this year. Constructed rough propellers for cost estimates, research into potential propellers and coating substances. * Assisted in the design of linear gear box, testing and installation * Basic machining such as drilling, tapping, filling and sanding to shape mounts and ensure correct mating of components | |

# Hobbies:

|  |  |
| --- | --- |
| **EWB Fairtrade volunteer and Venture Lead (UBC-Vancouver)** | **Sep 2015-Present** |
| * Responsible for leading Fairtrade Venture in the upcoming year, including year planning, member recruitment, event planning and communication with president, other venture leads and sponsors * Planned the fair-trade campus week resulting in over 300 attendees and 2 companies hosting events on campus | |
| **Beginner Baker:** Banana bread and Lemon Loaf | |