JEREMY PHY

Mechatronics Engineering Student at University of Waterloo

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SKILLS

C++ | Java | Git | HTML | CSS | Linux | Electronics Design | Soldering | Arduino | Fritzing | Power Tools | CAD | Solidworks

INTERESTS

Skate / Longboarding

Basketball

Cinematography

EXPERIENCE

Electrical Engineering Intern — *Summer 2018*

Focused Ultrasound Lab at Sunnybrook Research Institute

- Implemented **control system** with **Bash** scripts and **Linux**-based microcontroller, capable of applying a reflow heat profile in under 5 minutes
- Built an **automated** solder reflow oven from existing chassis, capable of a peak internal temperature of 235°C

President — *2017–2019*

Marc Garneau C.I. Robotics Club

- Prototyped experimental 'crawling' design to **optimize** friction within size constraints
- Managed executive team, finances, and fundraising effectively; resulting in operating budget **growth of 162%**
- Led club with hands-on approach to **championship-finish** at UOIT Sumobot Competition

PROJECTS

Personal Website — *Winter 2020*

- Designed web page using **HTML** and **CSS** for clean and informative layout
- Configured domain redirection through DNS-webhost pairing to enable HTTPS connection

Robinhood: The Game — *Winter 2018*

- Developed game architecture using **Java object-oriented programming**; resulting in efficient entity creation and data storage
- Implemented character mapping using **data structures** allowing for flexible entity interaction and movement
- Designed **GUI** using Java Abstract Window Toolkit (AWT) for seamless **UX** and gameplay

ACHIEVEMENTS

Merit Award – Merit Bursary Program — *2019*
– for 'exceptional community contributors'

Young Scholar Award Finalist – Young Scholar Foundation — *2019*
– for leadership and community involvement

Champion, Best Engineering Design and Most Novel Design Award — *2018*
UOIT Engineering Sumobot Competition
– best result out of 58 teams

EDUCATION

Candidate for BASc. in Mechatronics Engineering — *2019–2024 (expected)*

University of Waterloo GPA: 84.9%

- Relevant courses: Digital Computation, Algorithms and Data Structures

Talented Offerings for Programs in the Sciences (TOPS) — *2015–2019*

Marc Garneau C.I.

- Relevant courses: AP Computer Science A