

Kaarthic Pulogarajah

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Summary of Qualifications

- Ambitious Mechanical Engineering student, passionate about mechanical systems and design
- Experience in AutoCAD, C++, Java, and Arduino obtained through high school courses and self-learning
- Excellent written and verbal communications skills obtained through writing lab reports and tutoring
- Excellent teamwork and problem solving skills, acquired through design projects and competitions
- Strong analytic skill and consistent attention to detail, as shown through experimental lab courses
- Quick learner with ability to adapt and integrate into surroundings

Relevant Projects

1315-MH WIND TUNNEL | SEPTEMBER 2015 – JANUARY 2016

- Designed frame of wind tunnel to hold various sensors capable of measuring force and wind speed
- Co-authored a comprehensive proposal describing functionality, costs, and explanation of decisions made on how to build MH-1315 wind tunnel
- Integrated differential pressure sensor with Arduino to measure wind speed inside tunnel
- Extensively tested and troubleshooted sensor and produced a mathematical model to relate sensor readings to true wind speed using experimental data
- Created long-term schedule to ensure tasks were being done to meet project deadline

MOTION OF ROLLING SOUP CANS | SEPTEMBER 2015

- Devised experiment to compare the effect of different viscosities of soup cans on the distance they roll
- Revised and redesigned experiment to acquire accuracy of data and reduce noise
- Analyzed data using Microsoft Excel to produce graphs and show relationships
- Produced a professional lab report describing experiment and derived conclusions

C++ PROJECTS | JULY 2014 - PRESENT

- Self-taught programming language, working on projects as a hobby
- Programmed functional games such as Battleship, Connect Four, and 2048
- Efficiency of code increased with experience

Experience

MATH AND SCIENCE TUTOR | EDUCARE TUTORING | OCTOBER 2015 – JUNE 2016

- Reinforced and improved students' understanding of core concepts in various subjects
- Developed strategies and schedules with each student to focus on long-term and short-term goals
- Success evident when students returned for consecutive semesters to study different subjects

Education

UNIVERSITY OF WATERLOO | SEPTEMBER 2016 - PRESENT

- Candidate for Bachelor of Applied Science, Honours Co-op
- Relevant Courses; Engineering Graphics and Design

MARC GARNEAU CI | SEPTEMBER 2012 – JUNE 2016

- TOPS enriched math and science program

Achievements and Awards

- 3rd place in University of Toronto High School Design Competition | 2014
- Black belt in Taekwondo | 2014
- Top 25% Math Contests: Small C (2016), Hypatia (2015), Fermat (2015), CIMC (2014), Cayley (2014)
- 9th place DECA provincial competition | 2015

Interests and Activities

- Programming | 2013 – Present
- The Reckoner (newspaper) | 2012-2016
- Taekwondo | 2008-2016
- DECA (business competition) | 2013-2015
- Piano | 2010-2016