MATTHEW WRIGHT

Systems Design Engineering | mjgwrigh@uwaterloo.ca I 289-208-3683 I https://github.com/mattjgw

SKILLS AND EDUCATION

Skills: Java, C/C++, Python, Visual Basic, SQL, Git, Eclipse, PLC programming

Candidate for Bachelor of Applied Science in Systems Design Engineering, University of Waterloo, ON   **Sept 2016 – Present**
- Achieved excellent academic standing in each term (80% average or above)

EXPERIENCE

Controls Software Engineer, Dematic Limited, Mississauga, ON   **Jan 2017 – April 2017; Sept 2017 – Dec 2017**
- Designed, programmed, and commissioned state of the art materials handling systems
- Created PLC programs using RSLogix 500 and Studio 5000
- Utilized Visual Basic and SQL queries to automate data entry
- Communicated effectively in an interdisciplinary team both in speech and writing

Lifeguard and Swim Instructor, City of Burlington, Burlington, ON   **Aug 2016 - June 2017**
- Developed leadership and communication skills teaching swimming lessons to people of all ages
- Demonstrated confidence in emergency medical situation when providing first aid

PROJECTS

Voting Machine, Java
- Utilized graphical user interfaces to replicate an electronic voting machine
- Implemented data protection using PBE with MD5 and DES encryption

Laser Tripwire Security System, Arduino C
- Applied the finite state machine programming pattern to build a laser triggered security system powered by an Arduino Uno
- Employed hardware interrupts to optimize the speed of the alarm response

Wikipedia WebCrawler, Python
- Implemented the BeautifulSoup library and a breadth first search algorithm to find the fastest path using links between two Wikipedia pages

Knitting Pattern Creator, Processing
- Designed an object-oriented program that allows users to create knitting patterns digitally

Sudoku Checker, C++
- Wrote and algorithm that reads a completed Sudoku from a file and verifies that the solution is correct

AWARDS

- **2017 Marpeck Leadership Award**, an award given to a student who is pursuing an Engineering degree at the University of Waterloo and who has experience and an aptitude in leadership.
- **2016 Arthur F. Church Award**, an award given to two students entering University of Waterloo Engineering for outstanding contribution to the community
- **2016 President's Scholarship of Distinction**, awarded to students with a +95% high school average.
- **Provincial Finalist** for the Education Computing Organization of Ontario computer programming contest

VOLUNTEER WORK

- **Web Master,** Forest View Church, Oakville, ON
- **Cabin Leader/Lifeguard/Sailing Instructor,** Camp Mini-Yo-We, Port Sydney, ON