## Maria Watters

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#### Education

#### *Western Washington University* | Bellingham, WA Expected Graduation Date: June 2020

- BS in Electrical Engineering Electronics Focus
- Minor in both Physics and Mathematics

#### **Experience Work**

# *Electromagnetic Effects Intern* | Boeing June 2019 – September 2019

- Designed and implemented VBA program for P-Static Flight Test team for spectrum analyzer control in-flight
- Assisted in component verification for high intensity radiation field protection certification via impedance, induced current, radiated field, and pulse testing
- Assisted in lightening protection certification of 777X program via Loop Resistance Testing

## FPGA/ASIC Co-op | Rockwell Collins/Collins Aerospace

#### June 2018 – December 2018

- Designed RTL blocks for FPGAs on TTNT DSA program using Linux environment and SVN repositories
- Identified timing failure using static timing analysis and reduced failing communication timing between FPGA and interface from 10 ns to less than 0.5 ns
- Utilized UVM to verify design functionality of design work of peers and provided meaningful feedback supported with data
- Communicated with Scrum team utilizing Agile techniques for program development

## Project Management Intern | OutBack Power

#### July 2017 – September 2017

- Reduced the cost of a product by 3 times (\$1000) while complying with NEC 2017 guidelines
- Reduced the size of an enclosure for a firefighter hazard control by 3 times by utilizing an enclosure of a similar rating and building a prototype to ensure wire bending radii met NEC 2017 guidelines
- Presented prototype to company leadership for project to begin product development by developing business case, researching market assumptions, and investigating viable solutions
- Cataloged the European PV market for cost comparisons and company insight

## **Technical Skills**

## Hardware | Cortex-M4, RF, and PCB

- Prototype development and soldering
- Sensor integration and noise filtering for data gathering
- Oscilloscope, spectrum analyzer verification of circuit analysis and data transmission
- Development of radio antennas and radio hardware

## Firmware | UVM, HDL, and simulation environments

- Verilog, VHDL, SystemVerilog Hardware Description Languages
- UVM, QuestaSim, Quartus and Spyglass verification environments for STA and CDC

## Software | Multisim, ARM Assembly, C, KDS Debugger, and MATLAB

- Designed logic diagrams and schematic simulations via Multisim 14
- Graph computations and ability to write functions via MATLAB
- Developed embedded systems and DSP using C in μCOS
- Created software-defined radio in MATLAB
- Ability to debug ARM Assembly and C using KDS software
- Firm understanding of ARM Assembly programming language

## Achievements

- Awarded the 2020 Electrical Engineering Leadership Award at Western Washington University
- Nominated and represented the Pacific Northwest Region as Society of Women Engineers Future Leader 2017
- Served as both Vice President and President of WWU's Society of Women Engineers and IEEE
- Received company award at OutBack Power by Product Management Director for effective Competitive Matrix