SEBASTIEN BLANCHET

Cupertino, CA, USA (669)-241-8438 s3blanch@edu.uwaterloo.ca

SKILLS

- Advanced embedded control system design acquired from project and hands-on laboratory experiences
- Exceptional critical thinking and problem-solving skills allowing for complex engineering analysis
- Highly motivated and organized self-starter with a strong attention to detail and work ethic
- Outstanding oral and written communication to share creative ideas fluently in both English and French
- Able to thrive and lead in a team or work independently in a dynamic deadline driven environment
- Proficient in iWork, SOLIDWORKS, MATLAB/Simulink, VBA/VB, Python, C++, C, LabVIEW, LaTeX, Bash
- Experience with PLC/SCADA/HMI systems, embedded microcontroller programming (Arduino, x86 Assembler)

EDUCATION

University of Waterloo — **Waterloo, ON, CAN**
Candidate for B.ASc. Honours Mechanical Engineering: *3.3/4.0 GPA* — *Sept. 2013 - Present*

EXPERIENCE

Apple Inc. — **Cupertino, CA, USA**
Controls Engineering: Special Projects Group (SPG) — *Aug. 2017 - Present*
- PosX

Altaeros Energies — **Boston, MA, USA**
Systems Engineering — *Jan. - Apr. 2017*
- Performed FEA in ANSYS and PYTHON on prototype of worlds first commercial autonomous aerostat
- Coordinated with vendors and ControlEng SERVOsoft to size all control system components (servos, drives)
- Utilized electronic lab equipment, sensors and LabVIEW HMI to gather test data and analyze with MATLAB

Ontario Die International Inc. — **Kitchener, ON, CAN**
Research & Development — *May - Aug. 2016*
- Designed robotic components (electrical, pneumatic, hydraulic) of PLC/CNC bending systems in SOLIDWORKS
- Automated tedious SOLIDWORKS tasks with the API SDK in VBA and C++ in MS Visual Studio IDEs
- Performed hands-on Q&A HMI testing, machined components, fabricated assemblies with power/hand tools

Pratt & Whitney Canada — **Mississauga, ON, CAN**
Operations Program Management Analyst — *Sept. - Dec. 2015*
- Assured on time OEM delivery of a quality turbofan engine while meeting their expectations and needs
- Developed Excel VBA programs allowing for improvements in methods of business metric preparation

Skyjack Inc. — **Guelph, ON, CAN**
Manufacturing Engineering — *Jan. - Apr. 2015*
- Worked with a team of engineers to troubleshoot production issues at an aerial work platform manufacturer

PROJECTS

Ball and Beam System Laboratory, ECE 481: Digital Control Systems — *Aug 2017*
- Designed LabVIEW HMI, performed system ID, implemented/tuned digital controller on NI cRIO FPGA

Drumming Rhythm Arduino Hack, Personal: Wentworth Institute of Technology Hackathon — *Mar. 2017*
- Utilized the IDE and serial COM with MATLAB to develop real-time monitoring of drumming

pattern

Model-Based Design of Wind Turbine Pitch *Dec. 2016*
Actuation, ME 360: Control Systems
• Studied time/frequency domain responses to assure closed loop stability of PI Simulink model in MATLAB

INTERESTS
• Further developing skills while gaining new exposure to software, real-time controls and electronics
• Repairing off road vehicles, DIY Arduino projects, socializing with friends and playing intramural sports