Tarik Haj-Khalil

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U.S. Person

EDUCATION

University of Washington – *Seattle, WA*
Master of Science - Aeronautics & Astronautics (Controls) - **3.9/4.0** Graduation: June 2019
Bachelor of Science - Aeronautics & Astronautics, Cum Laude - **3.7/4.0** Graduation: June 2016

SKILL HIGHLIGHTS

- C++ (proficient)
- Python
- Java
- MATLAB (proficient)
- VBA Macros (proficient)
- NX Unigraphics
- Simulink
- Git
- SolidWorks (proficient)

AEROSPACE EXPERIENCE

Nonlinear Dynamics and Controls Lab – *Seattle, WA* March 2016 – Present
Graduate Researcher

- ➢ Reconfiguring optic and sonic **sensors** onto an autonomous **UAV** using **I2C** and **SPI** communication protocols running through **ROS** framework via **C++** code.

The Boeing Company – *Everett, WA* Summer - 2018
Cabin Systems IFE Intern

- ➢ Supported the In-Flight Entertainment (IFE) tech center team by verifying that **supplier products** meet required **electromagnetic** and **environmental requirements** across all **Boeing commercial fleets**.
- ➢ Performed **weight and power analysis** on a cutting-edge baseline IFE system for future Boeing programs.

UWashington Hyperloop – *Seattle, WA* 7 months - 2017
Controls & Power Tech

- ➢ Implemented **ADC/DAC** connections onto the Competition II pod computer using **C++** and **Python** code.
- ➢ Integrated **battery cell balancing** board into pod electronics to allow **live battery health monitoring**.

AeroTEC, Inc. – *Seattle, WA* Summer - 2017
Avionics Systems Intern

- ➢ Improved team efficiency by **automating data analysis** and Excel to **Visio** data transfer using **VBA** macros.
- ➢ Supported system level **requirement verification** and **validation** as per ARP4754 guidelines.
- ➢ Reduced **flight test vehicle** turnaround time by analyzing brake cooling trends and **publishing report.**

AIAA Capstone Project – *Seattle, WA* 8 months - 2016
Vehicle Integration Lead

- ➢ Led the Configuration and Integration team to design a **supersonic** research UAV with enhanced subsonic handling and low-boom characteristics using NX Unigraphics (CAD) as per **RFP specifications**.
- ➢ Partnered with **multidisciplinary engineering teams**, including mechanical, electronic, propulsion and software disciplines and combined ideas into a **single vision**.

AWARDS & LEADERSHIP

Awards: Roy & Irene Grossman **Scholarship** Award in Aeronautics & Astronautics
Leadership: Boeing **EAHI**; College of Engineering Student **Advisory Committee**
Organizations: UW **Hyperloop**; AIAA; UW Squash Club; **Tau Beta Pi**