Permanent Address:
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Justin Sutcliff

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EDUCATION

Purdue University – West Lafayette, IN   *May 2019*
- Bachelor of Science in Aerospace Engineering

EMPLOYMENT

Bell – Stress Engineer – Fort Worth, TX   *August 2020 to present*
- Performed initial analysis of and helped plan 412 tail rotor shaft fatigue testing in support of future aircraft weight increase
- Developed a bird strike simulation model in LS-Dyna to test critical nose and windshield panels prior to physical testing in order to inform future certification efforts

Textron Systems – Controls Engineer – Hunt Valley, MD   *August 2019 to August 2020*
- Worked with controls team to develop, test, and tune motion controller for Ripsaw and other tracked vehicle platforms
- Developed prototype embedded system to demonstrate a computer vision algorithm's ability to command the position of a UAS over a moving target
- Developed a mathematical plant model of tracked vehicles to allow controls team to better simulate and tune a body-rate motion controller
- Developed data processing tools to allow engineers to parse, display, and analyze test data faster and more accurately than previously possible
- Upgraded motor controller hardware on subscale test platform to incorporate torque-based control

Spirit AeroSystems – Design Engineering Intern – Wichita, KS   *Summer 2018*
- Redesigned Boeing 737MAX over-wing intercostal and supporting structure to incorporate additional emergency equipment installation
- Examined viability of various masking techniques in order to streamline application process of paints and compounds during final stages of fuselage production

Hallstedt Homestead Cherries – Summer Intern – Northport, MI   *Summer 2017*
- Worked with and led orchard labor throughout cherry growing season
- Gained exposure to agricultural practices

Aerial Agriculture – Research and Development – West Lafayette, IN   *September 2015 to August 2016*
- Developed autonomous aerial vehicle platform for capturing multispectral images of vegetation to determine crop health
- Led product development of ground sensor system used to monitor high value crops

CAMPUS INVOLVEMENT / LEADERSHIP

Purdue Engineering Presidents Council   *August 2017 to May 2019*
- Coordinate with other student organization leaders on campus to benefit the engineering community
- Functioned as liaison for feedback between students and the Dean of Engineering

Purdue Drone Club   *August 2015 to May 2019*
- President: *(2017 – 2018),* Vice President*: (2015 – 2016),* Founding Member
- Hosted largest collegiate drone racing event in the nation two years in a row

CDRA – Collegiate Drone Racing Association   *August 2017 to May 2019*
- Founded nonprofit organization for the management of collegiate drone racing
- Designed organization website with ranking system used for yearly competition

ADDITIONAL SKILLS

- 3D modeling and extensive 3D printing experience (CATIA V5/V6, NX, Solidworks, Fusion 360)
- PCB & circuit design, production, and assembly (KiCad, Autodesk Eagle)
- Lithium ion/polymer battery & power management system experience
- Software design experience (Java, JavaScript, C/C++, Qt, Android Development, html, python, Linux)
- Extensive MATLAB and Simulink experience

More information about coursework and major personal projects can be found at **justinsutcliff.com**