Luke **Doman**

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Education

Indiana University

Bloomington, IN

B.S. in Computer Science

2013 - 2017

- GPA: 3.6
- Selective Student Scholarship Recipient
- Dean's List

Work Experience

Windhover Labs

Houston, TX

Software Engineer | Lead Test Pilot | Partner

Jul 2017 - Present

- NASA SBIR Phase 2 startup developing safety-critical flight and ground software for Unmanned Aerial Systems (UASs) utilizing custom fork of NASA's Core Flight Software (CFS).
- Author of several apps in the Airliner flight software ecosystem critical for flight. Responsible for full life-cycle development of all authored apps including requirements, architecture, design, implementation, and test.
- Developed the Pyliner scripting engine from concept of operations to initial flight proven version. Pyliner enables autonomous Python scripted drone flight control either on or offboard the vehicle.
- Ensured safe operation and FAA compliance as the Remote Pilot in Command (RPIC) during all flight tests. Led PID and flight parameter tuning efforts to optimize vehicle flight performance. FAA Part 107 Remote Pilot Certification holder.
- Subject matter expert for the Command Ingest (CI) application of an interplanetary spacecraft's flight software as part of contract work. Responsibilities included implementation, unit/verification test, documentation, and technical support for the customer.
- Architected and implemented novel automatic serialization techniques to allow for ABI independent communication with vehicles from any given platform.
- Represented the company at industry conferences. Generated leads to expand the business by marketing products and inline engineering services.
- Performed technical demonstrations of Airliner for NASA, SpaceX, PX4 founders, and numerous others.

NASA Johnson Space Center

Houston, TX

Software Engineer Intern

Jun - Dec 2016

- Software Lead for the Database and Reporting Application for Code coverage on Orion (DRACO) tool using Agile methodologies with teams over consecutive internship sessions.
- Provided flight software (FSW) developers and testers the capability to gather code coverage metrics of the Orion spacecraft FSW while running in an emulation environment.
- DRACO's robust reporting features contributed valuable data to be utilized for both the Certification of Flight Readiness and ultimately the improvement of Orion FSW quality.
- Presented technical demonstrations of DRACO to NASA Orion leadership, Wind River Systems, and Lockheed Martin Space Systems.

Rockwell Collins

Cedar Rapids, IA

Software Engineer Co-op

Jun - Dec 2015

- Developed an ARINC 664-7 network driver controller used on over 200 lab machines across the world that performed faster and more reliably than previous versions.
- Worked with a senior engineer to develop a major update for aircraft equipment management software with over 300 active users.
- Presented developed software and updates to customers to gather feedback. Tailored software to fit user's needs.
- Assisted in software peer review process with manual verification work. Wrote scripts to allow for future automated verification process.

Technologies

Languages	Python, C, C++, C#, Java, Bash
Databases	SQL Server, MySQL, SQLite
Version Control	Git, Subversion, GitLab, GitHub, BitBucket
Web Development	HTML, CSS, Pug.js, Web2py
Platforms	Linux, Microsoft Windows 7-10