Adam Jones

1404 Cambridge Road, Ann Arbor, Michigan, 48104
linkedin.com/in/adamjnes | github.com/adamjonesumich/Credentials | adamjnes@umich.edu | 971-400-5308

EDUCATION

University of Michigan, Ann Arbor, Michigan GPA: 3.99 (unweighted)

2021 - 2025 **Bachelor's in Aerospace Engineering** with **minor in Computer Science**

2025 - 2025 **Master's in Aerospace Engineering**

Awards: Dean's Honor List (all semesters), James B. Angell Scholar (2023), Aerospace Engineering Centennial Scholarship (2023)

PROFESSIONAL EXPERIENCE

Collins Aerospace Systems Engineering Intern – xEVAS and Dragonfly TTS May 2024 – Aug 2024

xEVAS PCAI - *Exploration Extravehicular Activity Services Power, Communications, Avionics, and Informatics*

- Created test material for SEE radiation testing of two COTS candidates for DCU (Display Control Unit) display
- Developed test plan, procedure, and other documentation in compliance with JSC-67551 and program-level specifications
- Designed transportable SEE test rig, considering compliance to test requirements, failure modes, and facility compatibility

Dragonfly TTS – *Dragonfly Thermal Transport System*

- Analyzed line pressure drop under various flow conditions to determine worst-case sensor offset, validating sense line configuration
- Determined check valve crack pressure under worst-case expected loads to verify assembly operation during test and launch
- Developed fan package leakage allocation and estimated leak rates during test by leveraging legacy data in MATLAB analysis

CORE Process Improvement – MBSE Development

- Developed simple fluid loop model in Cameo to validate common component library methodology and inform best practices
- Trailblazed behavioral modeling to demonstrate component library potential and validate interface structure

Collins Aerospace Systems Engineering Intern - Advanced Oxygen Generator Assembly (AOGA) May 2023 – Aug 2023

- Presented 60-minute portion in AOGA dCDR with Boeing and NASA resulting in acceptance of paths to closure for relevant items
- Compiled/assessed compliance to all AOGA customer requirements and dormancy kit specification for dCDR preparation
- Compiled comprehensive AOGA integrated parts list and CDR-mature drawing tree for dCDR preparation
- Analyzed AOGA post-maintenance leak test fidelity, confirming ability to detect all possible leak failure modes
- Analyzed dormancy preparation water crossover hazards, confirming worst-case volume crossover was insufficient to cause hazard

EXTRACURRICULAR EXPERIENCE

Bioastronautics and Life Support Systems (BLiSS) Student Project Team Aug 2022 – May 2024

BLiSS Co-President: managed BLiSS administration, logistics, and operations for 3 teams and 85 students

- Reorganized organization structure and pursued heavy recruitment/retention to enable 3x organization growth in one year
- Oversaw project proposal development: developed schedule, mentored authors, co-wrote one of two final X-Hab proposals

BLiSS CARGO Controls Lead: led embedded systems team on NASA autonomous cargo management project

- Developed power delivery, sensor suite, motors, controllers, and C++ based system autonomous action elements
- Participated in 9 design reviews with industry auditors and stakeholders, including SDR, SRR, PDR, CDR, and FRR

Michigan Sustainable Aviation with General Electric (M-SAGE) Student Project Team

M-SAGE Director: led high-performance sustainability demonstrator MBSE project with GE Mar 2023 – May 2024

- Directed successful 4 design reviews with industry auditors: SRR, PDR, CDR, and FRR
- Used Siemens Teamcenter MBSE environment and other tools for architecture development, analysis, and project management
- Worked through project lifecycle, including requirements cascading, CONOPS, modeling, design, production, and V&V

Directed Research, Power Optimal Control under Prof. Oliver Jia-Richards, University of Michigan Jan 2024 – Apr 2024

- Improved on prior work on power-optimal control considerations in the context of regenerative reaction wheel clusters
- Incorporated real-world constraints and considerations into full-trajectory optimization and desired energy extraction rate
- Leveraged several system models, optimization techniques using MATLAB: dynamic programming; linear, nonlinear programming

SKILLS AND COURSEWORK

Programming/Modeling: C++, Python, C, MATLAB, Cameo/SysML, Simulink, SMW, NX, Fusion 360, STAR-CCM+, Excel VBA
Laboratory: Soldering, 3D printing, laser cutting, benchtop instrumentation, chemical lab training
Relevant Courses: MBSE Product Development Fundamentals/Leadership, Programming/Data Structures, Data Structures/Algorithms, Aerospace Computing, Solid Mechanics, Structures, Dynamics/Vibrations, Gas Dynamics, Aerodynamics, Aerospace MBSE Tools/Methods (MBSE), Aircraft/Spacecraft/Rocket Propulsion, Spacecraft Dynamics, Space System Design, Aerospace Controls
Extracurricular: Michigan Football megafan, intramural soccer/flag football athlete, DIY engineer, outdoor enthusiast