

LAURA TESSIN

Electrical Engineering and Information Technology

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EXPERIENCE

Systems Integration and Verification

Reflex Aerospace

📅 January 2023 – Today

📍 Berlin, Germany

Lead the test and verification of Reflex's first satellite mission and build up the Systems Integration and Verification function.

Systems Integration and Verification Team

- Establish and lead a dedicated Systems Integration and Verification team, defining processes, interfaces, and tooling.
- Support mission teams in early design, requirements definition, and design reviews.

Test and Verification Campaign

- Plan and execute end-to-end test and verification campaigns at the equipment, subsystem, and system level.
- Design and operate test infrastructure for integration and verification using Python, CLI, Grafana, and InfluxDB.
- Support environmental test campaigns at equipment and system level and contribute to launch campaign activities.
- Define and implement launch and early operations (LEOP) procedures and infrastructure, and support commissioning.
- Diagnose and resolve any issues together with hardware and software teams using hardware and software debugging tools.

Tooling and Infrastructure

- Develop automated test setups for early OBC hardware and software using Python and JupyterLab.
- Plan and implement infrastructure for remote access and control of flatsat and CI testbeds using Python, Flask, and REST APIs.

System Integration Engineer

Loft Orbital Solutions

📅 June 2019 – August 2021

📍 San Francisco, USA

Collaborated with all teams to develop, build, launch, and operate Loft's first two satellite missions.

Software Verification

- Built the infrastructure to test ground control software against embedded payload interface and control unit (Docker, Python, Jupyter).
- Collaborated with systems, ground software, and embedded teams to gather requirements and implement software-and hardware-in-the-loop tests.
- Set up the EGSE (Electrical Ground Support Equipment) and test scripts to allow customers to continuously test their payload against Loft's software and hardware.

Assembly Integration and Test (AIT)

- Performed AIT on Loft's payload hub flight hardware and customer payloads.
- Supported environmental and functional test campaigns of the payload hub and fully integrated satellite.

Satellite Operations

- Developed operations scripts and Grafana dashboards and performed real-time satellite operations on orbit.

Internship

Airbus Defence & Space

📅 April 2017 – October 2017

📍 Friedrichshafen, Germany

Worked in a team developing a new satellite platform.

- Scripting and maintenance (Java) for the system reference database
- Developed plots (Matlab, GNU Octave) and documentation scripts (Java) for functional verification

EDUCATION

Programming Retreat at the Recurse Center

[Recurse Center](#)

📅 November 2021 – February 2022

Part of a 12-week batch at the Recurse Center, a self-directed, community-driven educational retreat for programmers. Find more of my projects at <https://lauratessin.com/projects>.

- Did a nand2tetris walkthrough with a group of recursers to develop a computer from first principles
- Led a weekly creative coding meetup

M. Sc. Electrical Engineering and Information Technology

[Karlsruhe Institute of Technology \(KIT\)](#)

📅 April 2016 – March 2019

Focus on systems engineering and robotics.

B. Sc. Electrical Engineering and Information Technology

[Karlsruhe Institute of Technology \(KIT\)](#)

📅 October 2011 – March 2016

Focus on hardware design.