

Presentation Slide Outline – Conversational Style

Slide 1 – Title

“Keeping the Lights On in Space”

Carlos Granillo | NASA Space Mission AI Project

Slide 2 – The Pain

When a satellite’s power flickers, the whole mission is in danger and there is no repair truck in orbit.

Slide 3 – Our Fix

A chatty little AI sits on watch, learns normal power patterns, and waves a red flag the second things look weird.

Slide 4 – How It Works

Live data → quick clean-up → neural net tries to recreate it → big mismatch = “Uh-oh!” alert.

Slide 5 – Brain in Plain Words

Tiny autoencoder = memory of “all is well.” No labeled failures needed — just show it healthy data.

Slide 6 – Proving It Works

We fake power drops, replay old mishaps, and track how fast and how accurately the AI spots trouble.

Slide 7 – Why It Matters

Early warnings = saved missions, less downtime, and a step toward fully self-healing spacecraft.