

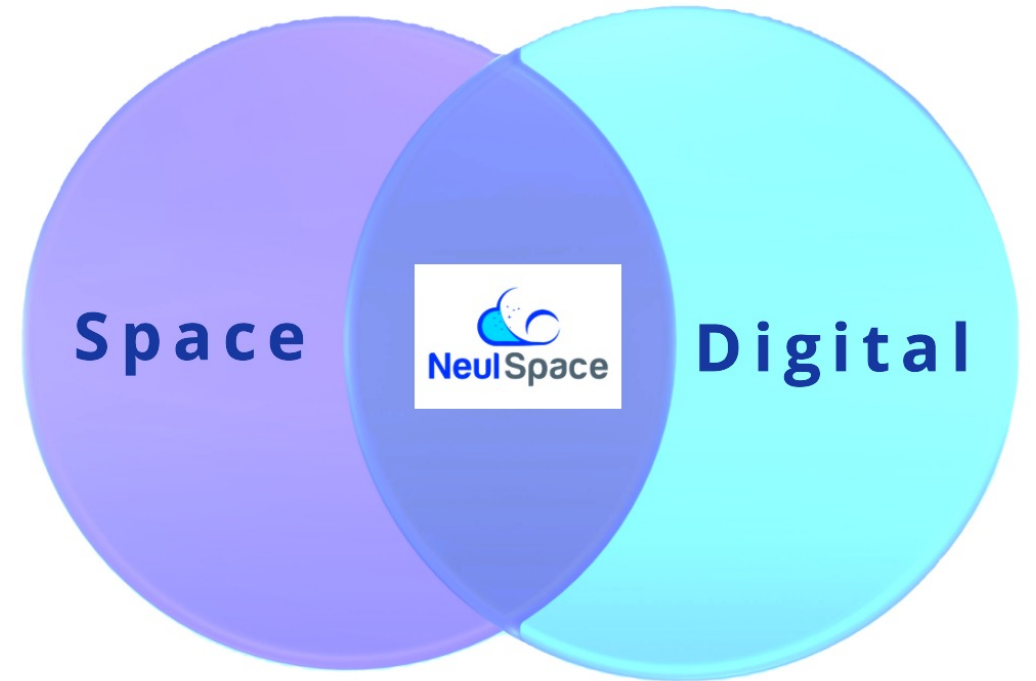
INNOVATIONS IN SPACE: ROLE OF ARTIFICIAL INTELLIGENCE

DENIS SUTHERLAND



NeuSpace

NEUL SPACE



Creating Digital Fuel for the Space Industry

INTRODUCTION

- Data Privacy and Security
- Bias and Fairness
- Transparency
- Accountability
- Safety
- Regulations

LARGE LANGUAGE MODELS (LLM)

- What is ChatGPT?
- Generic Uses
- Hallucinations
- Space Industry usecase



LLM WITH PRIVATE DATA

In 50 words why test a satellite

Testing a satellite is crucial to ensure its reliability, safety, and effectiveness for the mission, by identifying and resolving issues before, during, and after launch, and providing feedback for design and performance improvements ¹.

1 reference >

AI-generated content may be incorrect

what is the first step

The first step in testing satellite systems is ground testing, which involves testing the satellite and its subsystems in a simulated environment that mimics the conditions of space, such as vacuum, thermal, vibration, and electromagnetic interference ¹. Ground testing also includes compatibility and interoperability testing with the ground station and the launch vehicle ¹.

1 reference v

AI-generated content may be incorrect

[1 Engineering Document.docx - Part 1](#)

COMPUTER VISION

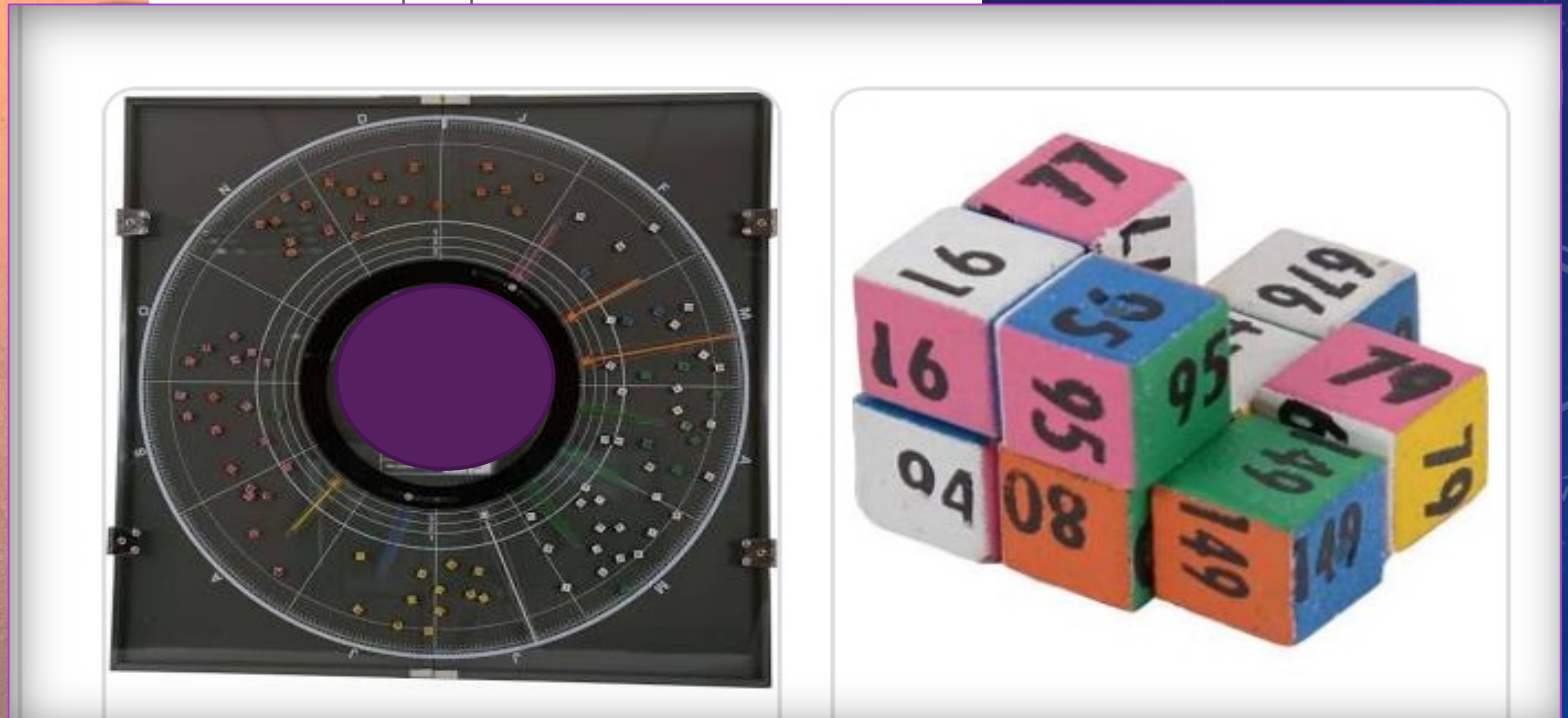
- Vision Service
- Custom Model
- Data Pipeline
 - Dish to Desk



COMPUTER VISION EDGE EXAMPLE

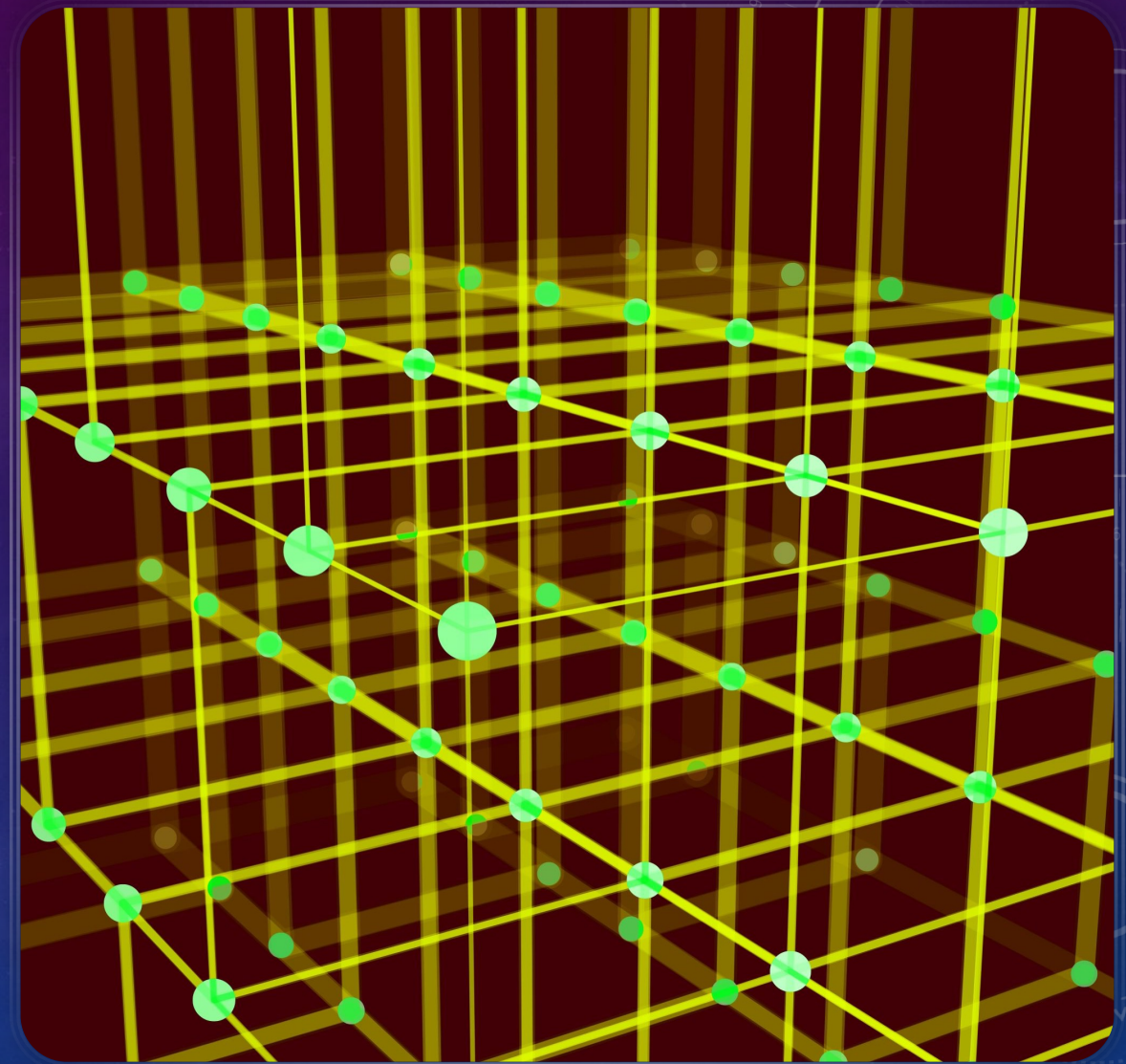
Detected attributes

5
8
9



OTHER INNOVATIONS

- Weather Predication
- Best Path Routing
- Network Management Data Processing



STEPS TO START INNOVATING WITH AI

- Create a Small Diverse team
- Identify a Problem
 - (start with a why not AI)
- Research the Problem / Market
- Assess Feasibility of AI Helping
- Agile - Break down into small steps
- Budget for resources



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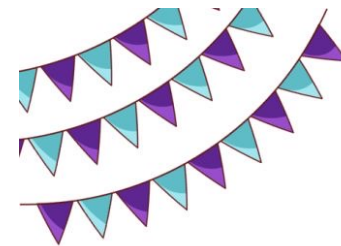
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