**UAV Performance Analysis & Visualization Platform**

**Who am I?** As an Honours Student specializing in MEC-enabled autonomous UAV delivery systems, I want to be known for creating research tools that bridge theoretical network analysis with practical UAV performance evaluation.

**My Vision:** I will create a MEC-UAV Performance Analysis Platform that transforms real-world experimental data from my Honours research into interactive 3D visualizations, enabling analysis of network degradation impact on UAV flight performance.

**Research Context:** Currently conducting Honours research on "A real-world experimental testbed for MEC-enabled autonomous UAV delivery system" where I performed T1 experiments investigating how network degradation affects UAV flight performance using Crazyflie drones.

**Service Description:** My platform serves the UAV research community with comprehensive analysis tools for network-aware flight experiments.

**Researchers can:** • Upload experimental flight data from network degradation studies • Visualize 3D flight trajectories with network condition overlays  
• Analyse flight accuracy vs network performance through interactive dashboards • Compare baseline vs degraded network scenarios side-by-side • Generate research-quality reports with statistical analysis and visualizations

**Key Features:** • Network-aware flight analysis showing correlation between connectivity and accuracy • Statistical visualization of position errors during network degradation • Phase-based analysis (transit vs waypoint) under different network conditions • Real-time 3D trajectory reconstruction with network quality indicators • Academic-grade error analysis with confidence intervals

**Academic Impact:** This platform demonstrates practical applications of my Honours research, showcasing how network conditions affect autonomous UAV delivery systems and providing tools to validate MEC architectures and optimize UAV performance.

**Target Audience:** UAV researchers, MEC system developers, and academic institutions studying autonomous delivery systems.

This semester, I want to first create the prototype of the basic functions. Later, I also want to add the function of users personalizing the addition of obstacles to simulate the flight environment.