SIT 725

Applied Software Engineering

Task 5.2C

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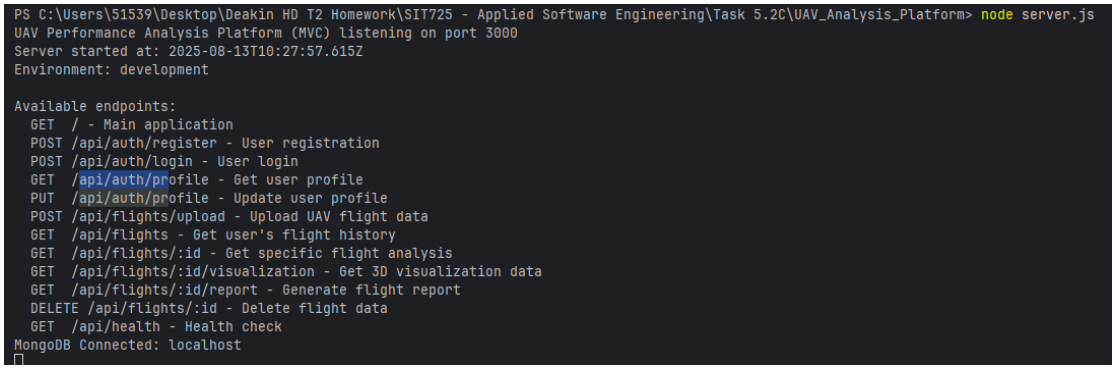
Project Structure:

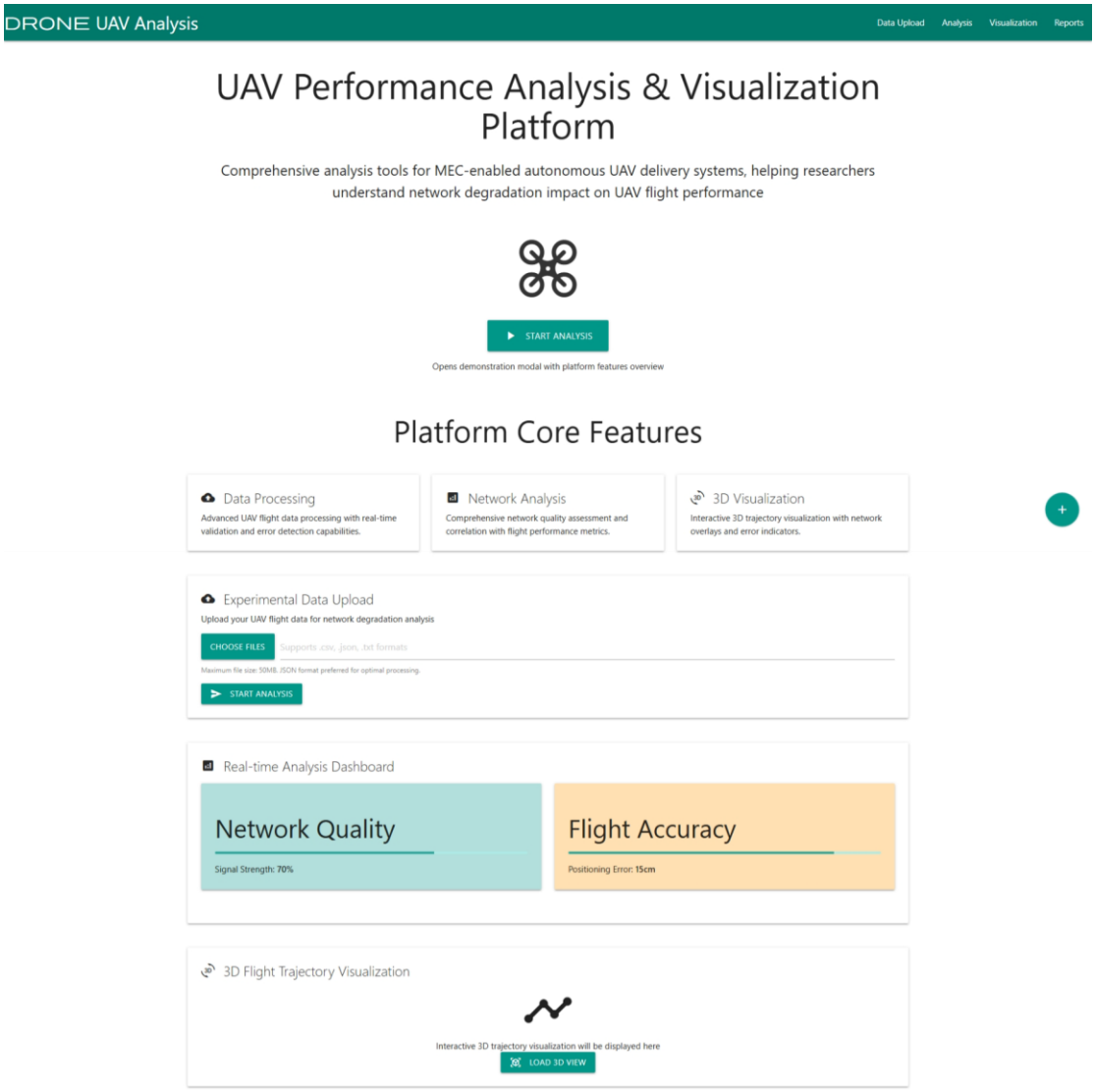
```
UAV_Analysis_Platform/
├── server.js                    # Main application entry point
├── package.json                 # Dependencies and project configuration
├── config/
│   └── database.js              # Database connection configuration
├── controllers/                 # Controller Layer (MVC)
│   ├── AuthController.js        # Authentication logic
│   └── FlightController.js      # Flight data operations
├── models/                      # Model Layer (MVC)
│   ├── User.js                  # User data model
│   ├── FlightData.js            # Flight data model
│   └── UAVDataProcessor.js      # Business logic
├── views/                       # View Layer (MVC)
│   └── index.html               # Main user interface
├── public/                      # Static assets for View
│   ├── css/
│   │   └── styles.css           # Styling
│   └── js/
│       └── scripts.js           # Client-side logic
├── routes/
│   ├── auth.js                  # Authentication routes
│   └── flights.js               # Flight data routes
└── middleware/
    └── auth.js                  # Authentication middleware
```

Repository link:

[SIT725/Task 5.2C/UAV_Analysis_Platform at main · JudsonJia/SIT725]

Screenshot:




DRONE UAV Analysis
Data Upload
Analysis
Visualization
Reports
UAV Performance Analysis & Visualization Platform
Comprehensive analysis tools for MEC-enabled autonomous UAV delivery systems, helping researchers understand network degradation impact on UAV flight performance
START ANALYSIS
Opens demonstration modal with platform features overview
Platform Core Features
Data Processing
Advanced UAV flight data processing with real-time validation and error detection capabilities.
Network Analysis
Comprehensive network quality assessment and correlation with flight performance metrics.
3D Visualization
Interactive 3D trajectory visualization with network overlays and error indicators.
Experimental Data Upload
Upload your UAV flight data for network degradation analysis
CHOOSE FILES
Supports .csv, .json, .txt formats
Maximum file size: 50MB. JSON format preferred for optimal processing.
START ANALYSIS
Real-time Analysis Dashboard
Network Quality
Signal Strength: 70%
Flight Accuracy
Positioning Error: 15cm
3D Flight Trajectory Visualization
Interactive 3D trajectory visualization will be displayed here
LOAD 3D VIEW