MONISH SATHYAPRAKASH

+447823603640 monishs11@gmail.com
Cranfield UK

PERSONAL STATEMENT

Aspiring operations leader with a background in Aviation Transport and an MSc in Aviation Digital Technology Management from Cranfield University. Hands-on experience in driving process improvements through simulation, predictive maintenance, and cross-functional team leadership. Led projects focused on operational efficiency, including a Smart Hangar Digital Twin and an Airbus AR training deployment. Proven ability to optimise workflows, manage technical teams, and engage stakeholders in fast-paced environments. Brings a strong foundation in systems thinking, data-driven decision making, and continuous improvement with a keen interest in advancing into manufacturing leadership roles.

KEY ACHIEVEMENTS

- Led teams and enhanced project coordination and quality assurance skills during an internship at airBaltic, aligning operational goals with management objectives and contributing to improved performance, efficiency, and quality standards (2023).
- Served as a Course Representative for the MSc in Aviation Digital Technology Management, communicating student feedback to faculty and contributing to curriculum development (2024-2025).
- Served as a Careers Representative at Cranfield University, effectively connecting students with career opportunities, facilitating workshops, and providing valuable feedback to enhance employability services (2024-2025).

EDUCATION

MSc in Aviation Digital Technology Management, Cranfield University, Cranfield, UK **October 2024 - September 2025**

- **Modules:** Aviation Digitalisation, Data-centric Aircraft Systems, Digital Aviation Operations and Maintenance Management, Predictive Maintenance Technology, Applied Aviation Computation, Aerospace Inspection and Monitoring Tools, Digital Aviation Supply Chain Management, Communications and Cybersecurity in Aviation
- **Group Project:** Collaborated on a 12-week project to develop a Smart Hangar Digital Twin focused on improving efficiency and traceability in C-Check maintenance. Led the simulation stream using Blender for 3D modelling and Python for aircraft movement logic. Integrated AnyLogic to map the tool and part logistics and identify workflow bottlenecks. Contributed to system design, task coordination (via JIRA), and aligning digital processes with real-world MRO practices
- **Individual Project:** Focuses on developing a predictive maintenance framework to improve C-Check planning and workload forecasting for an airline's aircraft. By analysing historical maintenance data, the study aims to classify upcoming C-Checks as light, moderate, or heavy, based on patterns in fault occurrences, part replacements, and environmental exposure. The goal is to enable data-driven decision-making that enhances maintenance efficiency and reduces aircraft downtime

BSc in Aviation Transport, Riga Technical University, Riga, Latvia **September 2019 - January 2024**

- **GPA:** 6.88 out 10 (2:1)
- **Modules:** Aerodynamics of Aircrafts, Technical Operation of Aircraft and Engines, Aviation Legislation, Fundamentals of Electronic Engineering, Global Satellite Navigation Systems, Materials and Hardware, Digital Techniques Electronic Instrument Systems, Human Factor, Aircraft Electrical Systems, Engineering Diagnostics of an Aircraft
- **Thesis Project:** Adapted UAV wing design for motorsport use, applying aerospace engineering principles to improve aerodynamic efficiency through CFD-based downforce and drag optimisation. Integrated advanced materials and fluid dynamics to evaluate structural integrity, showcasing cross-domain innovation between UAV and high-speed vehicle aerodynamics

CAREER HISTORY

airBaltic, Riga, Latvia, Intern **January 2023 - December 2023**

airBaltic commands the Baltic airline market from its base in Riga, Latvia. Established in 1995, it connects over 70 destinations in Europe and beyond with a modern Airbus A220-300 fleet, prioritising sustainability, comfort, and reliability.

- Improved aircraft interior maintenance workflows, contributing to a 15% reduction in turnaround time.
- Collaborated with cross-functional teams to streamline interior maintenance processes, reducing turnaround time by 15% while performing quality control inspections and maintaining detailed documentation for future audits.
- Optimised inventory management and material stock control, ensuring timely availability of parts and reducing project delays by 10%.
- Trained new staff on aircraft interior maintenance procedures, increasing team efficiency and contributing to a 25% improvement in onboarding time.

ACADEMIC PROJECTS

Airbus Project Management, Broughton, UK, AR Training Solutions for Workforce Optimisation, Team Leader **October 2024 - January 2025**

- Developed AR-based training modules, reducing training time by 35% and boosting retention by 50% through immersive maintenance and emergency simulations.
- Implemented real-time AR workflows, cutting error rates by 40% via interactive, task-specific guidance in cross-functional teams.
- Streamlined onboarding and knowledge transfer, integrating AR with existing systems to reduce onboarding time by 25% and improve operational efficiency.

Group Design Project, Cranfield, UK, Smart Hangar Digital Twin for Aircraft C-Check Optimisation, Team Leader **February 2025 - April 2025**

- Headed a 5-member team to deliver a Smart Hangar Digital Twin aimed at improving C-Check efficiency by 20-30%, coordinating cross-functional tasks via JIRA and engaging MRO stakeholders for use case validation.
- Spearheaded simulation development, modelling hangar and aircraft layouts in Blender and scripting aircraft movement and zone logic in Python.
- Applied AnyLogic to simulate part/tool logistics, identify bottlenecks, and optimise technician workflow; defined system architecture and data flow aligned with MRO standards.

Individual Research Project, Cranfield, UK, Predictive Maintenance Framework for Aircraft C-Checks **May 2025 - Present**

- Built a machine learning framework to classify upcoming aircraft C-Checks using historical maintenance data, analysing 100,000+ records for fault and component trends.
- Deployed clustering and classification models in Python (scikit-learn) and built a Power BI dashboard to visualise fault patterns and forecast maintenance complexity.
- Enhanced workload planning with a projected 10-15% drop in unplanned events; validated model performance with industry benchmarking and stakeholder input.

SKILLS, INTERESTS & EXTRACURRICULAR ACTIVITIES

- **Operations & Tools:** Power BI, JIRA, Trello, Workflo Plus, AnyLogic
- **Engineering Software:** SolidWorks, Ansys, Autodesk Inventor, Blender
- **Programming & Data:** Python, MATLAB Simulink, JMP Pro, C++
- **Soft Skills:** Team leadership, cross-functional coordination, process optimisation
- **Languages:** Fluent in English, Hindi, Kannada