

Research Engineer I (Aerospace Engineering/Aeronautical Engineering/ Computer Science) Nanyang Technological University

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Job Title Department Institution	Research Engineer I (Aerospace Engineering/Aeronautical Engineering/ Computer Science) ATMRI Nanyang Technological University Singapore , , Singapore
Date Posted	Feb. 15, 2024
Application Deadline Position Start Date	Open until filled Available Immediately
Job Categories	Research Scientist/Associate
Academic Field(s)	Computer Science Aerospace/Aeronautical/Astronautics Engineering - Other
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Job Description

Under the Air Traffic Management Research Institute, Nanyang Technological University, you will be part of a research team to take up exciting and challenging research problems in the domain of Air Traffic Management Systems by applying Artificial Intelligence and Data Analytics techniques. In this project, you will contribute to the development of innovative solutions that optimize flight descent operations, reduce fuel consumption, and align with the broader goals of sustainable and efficient



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aviation.

Key Responsibilities:

- Conduct research related to descent prediction and CDO optimization
- Analyze large datasets comprising flight data, weather information, airspace constraints, and other relevant parameters
- Use statistical analysis and machine learning techniques to extract meaningful insights and identify patterns that can inform the development of predictive models
- Implement algorithms and models in appropriate programming languages or software environments to handle real-time or near-real-time applications in flight operations
- Conduct simulations and testing to validate the performance of developed algorithms and models
- Maintain thorough documentation of research findings, algorithm designs, implementation details, and testing results
- Prepare technical reports, presentations, and documentation for internal use, regulatory compliance, or dissemination to stakeholders
- Other engineering support on hardware and software

Job Requirements:

- Bachelor's degree in Aerospace Engineering, Aeronautical Engineering, or Computer Science
- Proficient in aviation and data science programming languages like Python, MATLAB, or C++
- Strong analytical abilities with expertise in data analysis and manipulation using tools like pandas, NumPy, or similar libraries
- Knowledge and skills in machine learning algorithms and frameworks for predictive modelling
- Understanding of aviation regulations, procedures, and airspace constraints
- Previous experience in developing and running simulations for flight operations
- Knowledge and experience in modeling aircraft performance and fuel-burn based on BADA (Base of Aircraft Data)
- Strong communication abilities to collaborate with cross-functional teams, present findings, and explain technical concepts to non-technical stakeholders
- Prior experience in air traffic management-related research preferred
- Familiarity with environmental considerations related to fuel efficiency in aviation



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We regret that only shortlisted candidates will be notified.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Singapore