



What is TRAIT?

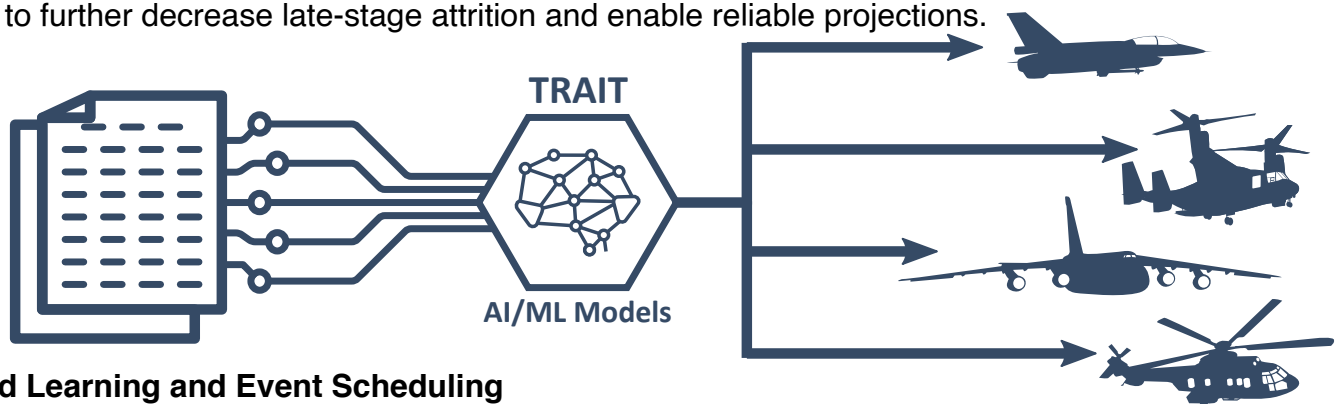
TRAIT is a data fusion and predictive analytics tool that provides insights to reduce costs of pilot training. It ingests student aviator training performance data and applies AI/ML techniques to estimate and monitor students' training progression and proficiency in different key areas. Further, it estimates students' risk of attrition and their suitability to different aircraft pipelines to guide pilot training operations.

Attrition Reduction:

Pilot training is a multi-year, challenging, and an expensive process that involves simulators, aircraft, instructors, and other air crew. It costs several millions of dollars to train one basic qualified pilot for most aircraft platforms. As a result, attrition of a student aviator, in later training stages results in significant loss of resources and hampers mission readiness. Our tools can help identify such students very early on, to optimize resource allocations and improve time to train and cost to train metrics. Similarly, it could be extended to pilots in the workforce.

Optimal Aircraft Pipeline Recommender:

Our tool generates an aircraft platform suitability score for each student aviator, based on their performance, from early stages of training. Through real-time estimation and continuous monitoring of these scores, the best suited student aviators can be quickly identified and assigned to each platform when needed. This is expected to further decrease late-stage attrition and enable reliable projections.



AI Guided Learning and Event Scheduling

Our explainable AI approach identifies skill deficiencies in student aviators and can help guide training activities and flight scheduling. Learning rate and skill decay metrics can be extracted for each student to help optimally schedule flight training to maintain proficiency levels. Unsuccessful flight events could also be predicted in advance. On an aggregate level, these insights can help guide investment decisions.

Capabilities:

- Estimate Student Attrition Risk
- Recommend best-suited aircraft pipeline
- Identify key skills for success

Benefits:

- Lower Costs & Faster Training
- Reliable Training Projections
- Rapid & Informed Decision Making

Enabling Technologies:

- Data Fusion
- Supervised Learning
- Recommender Models
- Interactive Dashboards

