



Mon-Thurs, 24-27 April 2023 • Hilton Washington Dulles Airport

Monday, 24 April

1130-1630 Registration
Belmont Foyer

	<i>Belmont I</i>	<i>Belmont II</i>	<i>Belmont III</i>	<i>Belmont IV</i>
1230-1325	MLOps to Accelerate the Kill Chain in the Air Domain , Mr. Joey Cheung, Raft	Dataiku 101: Workshop , Mr. Darien Mitchell-Tontar and Mr. Chris Olen, Dataiku	OODA Loops and Warfighting Operations Analysis Officers , Mr. Stewart Greathouse, USAF	Weights and Biases - Enterprise Model Management for Deep Learning , Mr. William Pleskow, Weights and Biases
1325-1330	Break			
1330-1425	Military Data Labeling 101: Best Practices and Methods for Efficient and Accurate Labeling for Military AI Development & Testing , Mr. Peter Kant, Enabled Intelligence	Tableau for the Analyst , Mr. Brian Harris, Tableau Software	How to use Workera for Skills Intelligence , Mr. Ozzy Khan and Ms. Diana Wolfish, Workera	Mapping a Blueprint for Organizational Use of AI Design, Implementation and Deployment: A Workshop for Stakeholders, Decision-Makers and End Users , Mr. Am Asif Haider, COOPVA and Dr. Destinee Prete, PG Strategies Group
1425-1430	Break			
1430-1525	AFIT Professional Development Courses in Data Science, Data Analytics and Data Engineering , Lt Col Hiren Patel, AFIT	Implementing a Production-grade Pipeline for Image Segmentation , Mr. Ben Faircloth, Databricks	Machine Learning at Scale: Industry Perspectives , Lt Col Joseph Chapa, DAF	Enabling a Scalable, Futureproof AI Ecosystem Across the Hybrid & Multi-cloud , Dr. Kjell Carlsson, Domino Data Lab
1525-1530	Break			
1530-1625	AI/ML Empowered Computer Vision for FMV at the Edge , Dr. Besma Abidi, Phelps 2020, Inc.	Military Aircraft Identification Using Image Classification in Dataiku Ms. Lexa Tremel and Dr. Charles Wheelus, Dataiku	Plotly Dash Enterprise and Databricks – Building Powerful Production Applications , Mr. Michael Razo, Plotly	Automate The Boring Stuff for Data Scientists , Mr. Luke Shulman and Mr. Zach Maurer, DataRobot



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Tuesday, 25 April

- 0800-0900** **Registration and Breakfast Pastries**
Belmont Foyer
- 0900-0905** **Welcome**
Ms. Eileen Vidrine, SES, DAF
Chief Data & Artificial Intelligence Officer
Belmont Ballroom
- 0905-0930** **Opening Remarks**
Mr. Rowayne A. Schatz, Jr., SES, DAF
Director, Studies & Analysis
Belmont Ballroom
- 0930-1000** **Keynote Presentation**
The Honorable Frank Kendall
Secretary of the Air Force
Belmont Ballroom
- 1000-1040** **Keynote Presentation**
Ms. Diane Staheli, Chief, Responsible AI
Chief Digital and AI Office, DoD
Belmont Ballroom
- 1040-1050** **Break**
Belmont Foyer

	<i>Belmont I</i>	<i>Belmont II</i>	<i>Belmont III</i>	<i>Belmont IV</i>	<i>Piedmont I</i>	<i>Piedmont II</i>
1050-1130	Panel: AI in Large Organizations: Industry Perspectives Moderator: Lt Col Joseph Chapa, DAF Mr. Michael Harasimowicz, LCMO Mr. Ron Keesing, Leidos Mr. Jay Meil, SAIC Ms. Alka Patel, Comcast				AF Weather AI/ML Projects Mr. Fred Fahlbusch, KeyLogic Systems; Dr. Mark Veillette, Dr. Shibi Rajagopalan, MIT LL	Data Ethics and Ethical AI , Mr. Joseph Troy Morgan, The Aerospace Corporation
1130-1245	Lunch					



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1245-1330	GOVERNMENT ONLY SESSION: DAF Data Fabric: SAF/CND Strategic Vision: Mr. David Sanchez, DAF Chief Data and AI Office		Cloud Based Enterprise Capability Development Data Architecture, Mr. Clarence Williams, AF/A5/7 Air Force Futures	The Human Machine Team: AI Directed Decisional Guidance for the Warfighter of Tomorrow, Mr. Jay Meil, SAIC	Implementing a JavaScript Strategic Calendar in Envision, 1 Lt Miliانو Mikol, USAF	NGA's ML-Ops Platform Mr. Mitchell Edward Pillarick, III, National Geospatial-Intelligence Agency
1330-1345 Break						
1345-1430	DAF SAF/CND VAULT Data Platform, Ms Marlu Oswald, Seed Innovations	Zero Trust Data Pillar / MAJCOM Data Discussion, Dr. Michael Bradfield, MITRE	Plotly – Dash Application Use Case Deep Dive, Mr. Michael Razo, Plotly	Unleashing the Power of the Data Lakehouse: Achieving Decision Dominance in JADC2, Mr. Zafer Bilaloglu, Databricks	Adapting Compact Computer Vision AI for Real-time Object Detection, Dr. Byunggu Yu, Strategi	Exploiting the USAF Data Fabric for Live Performance Monitoring of AFNET Operations, Dr. Yechezkal Gutfreund
1430-1445 Break						
1445-1530	Data Analytics with VAULT Tech Stack, Ms. Sarah Green, USAF	GOVERNMENT ONLY SESSION: ELICSAR - Shaping the Future of Information Warfare, Mr. John Vona, ACC/A589, Maj Matthew Rask, AF/A2/6C A3C, Mr. Cody Hunt, CTR, MSgt Jeremy Caton, ACC/A589	Aircraft Routing and Attrition Calculation for Campaign Analysis, 1 Lt Austin Logan, ACC/A9A	Enabling Zero Trust Access on AF VAULT, Mr. Chris Brown, Immuta	Air Force Operational Training Infrastructure (OTTI) Data Fabric Discussions, Mr. Mark David Ashford and Mr. John R. Hutt, USAF	Establishing Security in AI/ML Based Systems, Mr. Andrew Basil Spage, CalyposoAI



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1530-1545 **Break**
Belmont Foyer

1545-1600 **Speakers**
Col Tucker “Cinco” Hamilton, USAF
Chief of AI Test & Operations, DAF
Chief Data & Artificial Intelligence Office
Belmont Ballroom

1600-1645 **Keynote Presentation**

- Mr. Chris Whitlock, Partner, aiLeaders, LLC
- Mr. Frank Strickland, Partner, aiLeaders, LLC

Belmont Ballroom

1645 **Adjourn**

1730 **Networking Social**
A drop-in networking event will be held at Crooked Run Fermentation, located at 22455 Davis Dr., Sterling, VA. We encourage all attendees to join us starting at 1730.

Wednesday, 26 April

0800-0900 **Registration and Breakfast Pastries**
Belmont Foyer

0900-0930 **Opening Remarks**
Ms. Eileen Vidrine, SES, DAF
Chief Data & Artificial Intelligence Officer
Belmont Ballroom

0930-1030 **Keynote Presentation**
Dr. Seth Dobrin
President, Responsible AI Institute
Belmont Ballroom

1030-1050 **Break**
Belmont Foyer



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	<i>Belmont I</i>	<i>Belmont II</i>	<i>Belmont III</i>	<i>Belmont IV</i>	<i>Tarara</i>	<i>Piedmont I</i>	<i>Piedmont II</i>
1050-1130	Cyber Threat PDF Report Parsing Tool , 1 Lt Benjamin McCloskey, USAF	Panel Lt Col Andrew Bowne, MIT AI Accelerator, Mr. Phillip Reiman, OGC Support for DoD CDAO, Mr. Shane Shaneman, CMU	Visualizing a Satellite Footprint in VAULT with R , Lt Col Brian Stone, PACAF	CBC2 Communications Broker for Interoperability and Integration within the ABMS Ecosystem , Ms. Angela Sheffield and Ms. Bharat Sharma, Raft	Air Education and Training Command, Strategic Command Dashboard , 1 Lt Richard Smith, USAF, AETC	Continuous Intelligence at Scale: Real-time Streaming Data Working with Human Cognition , Mr. Ron Garnett, CTA	Course of Action Optimization through Machine Learning , Mr. Cameron Izzi, AFS
1130-1145	Break						
1145-1230	COCOM NLP Applications , Maj Nick Griese, USCENTCOM	Upskilling: How to Win the Battle for Data, AI, and Machine Learning Talent , Mr. Doug Bryan, Dataiku	DAF AI Education , Maj Megan Muniz, Mr. John Radovan, MIT	Multi-Domain Battle Management Centaur Teams , Mr. Bartley Stewart, USSF SSC/BZR, Dr. Richard Carter, The Alan Turing Institute, UK	Military Open Source Application Integration Center (MOSAIC) , Maj Jonathan Turner, AFIT	Data Science/AI/ML in the Space Force , 1 Lt Michelle McGee, USAF	Responsible Machine Learning for United States Air Force Pilot Candidate Selection , C1C Devin Wasilefsky, USAFA
1230-1345	Lunch						
1345-1430	Flight Line of the Future with Interactive Multimedia and Automation , Mr. Brian Geisel, Geisel Software, Inc.	15A Assignments and Special Opportunities by AFPC - Where can I go? , Maj Cazzi Rose, USAF	Satellite Constellation Sensor Tasking Using Reinforcement Learning , Dr. Benjamin Rodriguez, II, JHU/APL	Data Modeling for Collaborative Combat Aircraft Development , Lt Col Jesse Breau, Argonne National Laboratory	F-16 IR Deconfliction for Coordinated Attacks using Laser Guided Bombs , Mr. Robert McFarland, III, USAF	Data Science in Developmental Test , Mr. Abraham Eaton, USAF	An AI/ML Sandbox You Can Actually Use , Ms. Ting Wang, Omnifederal



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1430-1445	Break						
1445-1530	13N FORGEN Assessment Scheduling Tool (FAST) , Capt Jake Ehrlich, AFGSC/A9A	GOVERNMENT ONLY SESSION: Reimagining Manpower Resourcing Decisions in the Human Capital Ecosystem: An Analytic Force Roadmap for 2024 , Maj Joey Hoecherl, USAF	Autonomy Capability for Next Generation Air Dominance , Dr. Kevin Schmidt, ARFL	AI, Uncertainty, and the Proportionality Principle , Lt Col Joseph Chapa, DAF	Safeguarding the Bioeconomy: Biotechnology Needs a Security Patch...Badly , Mr. Edward You, Office of the Director of National Intelligence	Data Integration Network for Operational Energy , Dr. Jordan Eccles, USAF	Remote Sensing and Inference in the Information Environment , 2d Lt Tom Galligani, USAF
1530-1545	Break						
1545-1630	DAFAC Update and 2022 Department of the Air Force Analysis Awards Ceremony (Ceremony goes until 1700)	Dynamic Dashboarding for Warfighters , Mr. David Yu, Microsoft	The Intelligent Data Fabric: The Right Data, for the Right People, at the Right Time , Mr. Bruce Cerretani, IBM	Decision Making Via Plotly Dash , Dr. Elsa Schaefer, LinQuest/US SF	Object Detection in FMV data on the VAULT Platform , Dr. James Stockton, Altamira Technologies	Detecting GNSS Interference - JADC2 , Mr. Kyle Lindgren and Mr. Zach Maurer, DataRobot	

Thursday, 27 April

Hilton Washington Dulles Airport: Unclassified Sessions

0800-0900 Registration and Breakfast Pastries
Belmont Foyer

	<i>Belmont I</i>	<i>Belmont II</i>	<i>Belmont III</i>	<i>Belmont IV</i>	<i>Piedmont I</i>	<i>Piedmont II</i>
0900-0945	Squadron Manning & Personnel Management Tool , Mr.	Toward an AI/ML-Enabled Data Fabric Reference Architecture ,	Innovative Approaches to Resourcing Strategy: Campaign Plans, Readiness, and	Using Finite Source Queuing and Simulation to Optimally Determine the Number of	Beyond the Algorithm , Ms. Maggie Smith Accenture Federal	Workforce Analytics Dashboard - Visualizing DAF Diversity and Inclusion , Lt Col Leah Pound,



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	Nathan Tatko, USAF	Dr. Anthony Lapadula and Mr. Michael Walters, MIT LL	Requirements, Mr. Jason Hepp, USAFE-AFAFRICA	Maintenance Repair Workstations for a Fleet, Dr. Greg Gehret, USAF		Secretary of the Air Force
0945-1000	Break					
1000-1045	The Power of Automation: Using Microsoft Tools to Create a Custom Data Solution, Dr. Cynthia Juliana Pena-Baker, USAF	The Information Scalability Challenge in Data Fabrics: ML-based Approaches to Harnessing Complexity, Dr. Kevin Nam, MIT LL	Safeguarding Science: Addressing the Convergence of Emerging Technologies Ms. Sabrina Hoback and Mr. Edward You, ODNI	Methods for Comparing Pilot Proficiency in Undergraduate Pilot Training Programs, Dr. Tyler Danley, USAF	A Conformal Prediction Approach to Quantify Student Pilot Error via Multimodal Physiological Signals, 2d Lt Gregory William Barry, USAF	Managing a Critical Infrastructure Cyber Battlespace with a Community Cyber Force, Mr. Alexander Brickner, University of Massachusetts Lowell
1045-1100	Break					
1100-1145	Epistemic Planning for Heterogeneous Robotic Systems, Ms. Lauren Bramblett, AFIT	The Digital Age: Upskilling & Analytics as a Force Multiplier, Ms. Gabrielle Cappadona, DataCamp	Use of Big Data and the Operationalization Considerations for Suicide Risk Prediction Models, MAJ Carrie Donoho, USA, Research Facilitation Lab	Manning Deficit Mitigation Analysis for Undergraduate Pilot Training, Mr. Mark Hatch, AETC	Tactical Level Survey Analysis, Mr. Quinton Brown, USAF	
1145-1300	Lunch					



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1300-1345	Weapons of Precise Destruction: a case study at the intersection of law, targeting operations, and AI , Mr. Harris Heit and Ms. Emma Lamberton, VISIMO	Farsight: Edge Processed 3D Modeling & AI to Support JADC2 , Ms. Noelle Tuss and Mr. Parker Clark, Reveal Technology, Inc.	2AF In Instructor Diversity Index (DI) Study , Ms. Ruby Morales, USAF	Developing Measurables Objectives for Rated Diversity Improvement Initiatives , Dr. Cigdem Meek, USAF	Automated Registration of Polarized Light Microscopy Images Using Deep Learning Techniques , Capt Nathan Johnston, SAF/SARI	CE Utilities Forecasting: Time Series Predictions with Deep Neural Networks in TensorFlow Keras , Mr. Patrick Emilio Aizpurua, DoD
1345-1400	Break					
1400-1445	15A Career Field in the Air Force Reserve and Air National Guard , Col Terence Kudo, Air Force Reserve Command	Dynamic Target Optimization System (DyTOPS) , Mr. Lee Kraus, Securboration		What I Learned as an MIT AI Accelerator Phantom Fellow , Mr. Joshua Couse, USAF		Indiscriminate Disruption of Conditional Inference on Multivariate Gaussians , C1C Matthew LaRosa, USAFA

Thursday, 27 April: Classified Sessions

The Aerospace Corporation: Hexagon Classified Conference Center

- 0800-0900** **Registration and Breakfast Pastries**
- 0900-0915** **Opening Remarks**
- 0915-1015** **Keynote Presentation**
Mr. Paul de Naray, DCIO(CS)/RAOI, Aerospace FFRDC
- 1015-1025** **Break**
- 1025-1055** **Presentation: Themis**
Lt Col Ashton Harvey, NRO



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- 1055-1105 **Break**
- 1105-1135 **Presentation: Comparison of Legacy and AI-Enabled Workflows**
Dr. Anna Rubinstein, NGA
- 1135-1145 **Break**
- 1145-1215 **An Interactive R Shiny Dashboard for Viewing Combat Hammer Weapons Data**
Ms. Tara Nicole Bentley, 86 Fighter Weapons Squadron
- 1215-1300 **Lunch**
- 1300-1330 **Presentation: Ukraine Crisis Airbase Defense Analysis**
Mr. Thomson McFarland, USAFE-AFAFRICA
- 1330-1340 **Break**
- 1340-1410 **Presentation: Defense Planning Scenario (DPS) Mobility Timing and Force Generation Comparisons**
Maj Katherine Wilson and Ms. Jessie Thomas, USAF
- 1410-1420 **Break**
- 1420-1450 **Presentations: Operational Analysis of Beyond Line-of-Sight (BLOS) C2**
Lt Col Brian Stone, PACAF
- 1450-1500 **Break**
- 1500-1530 **Presentation: Accelerating in Germany as a Government Technical Integrator (GTI)**
1 Lt Youssef Ashraf Abubaker, Air Force/ NRO
- 1530-1545 **Closing Remarks**