

JENNIFER L. DICARLO

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OBJECTIVE

Earn an Operations Research PhD from Colorado School of Mines in order to pursue a career as a college professor or Operations Research professional for a major corporation.

EDUCATION

COLORADO SCHOOL OF MINES (Golden, Colorado)

Current Student in Operations Research with Engineering PhD Program

Projected graduation May 2020

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (Cambridge, Massachusetts)

MS in Aerospace Engineering, June 2003; 4.4 GPA on 5.0 scale

Emphasis – Numerical Methods, Flight Vehicle Aerodynamics, Stability and Control

UNITED STATES AIR FORCE ACADEMY (Colorado Springs, Colorado)

BS in Astronautical Engineering and Aeronautical Engineering, May 2001

Minor in Mathematics, May 2001

3.78 GPA on a 4.0 scale, Distinguished Graduate

PUBLICATIONS

DiCarlo, J.L. Master's Thesis, *Aerocapture Guidance Methods for High Energy Trajectories*, June 2003
Department of Aeronautics and Astronautics, Massachusetts Institute of Technology, Cambridge, MA

EXPERIENCE

ENGINEERING

- Identified and resolved engineering problems for Air Force system program office; collaborated with engineers to resolve issues not covered by technical data repair instructions.
- Investigated critical throttle quadrant discrepancies; built proposal to refurbish /replace flap/slat detents; increased B-1 reliability and decreased system overspeeds.
- Assisted in Optimization Research for Concentrating Solar Power Tower systems; experienced developing optimization models in AMPL for linear, non-linear, and integer models.
- Performed Teaching Assistant Duties for graduate-level linear programming course; tutored students, graded coursework, and proctored exams.

STRATEGIC PLANNING

- Led a 65-person team for planning and execution of historic Key Leader Engagement in support of over 80 Distinguished Visitors, 25 General Officers, and the US Ambassador to Jordan.
- Directed the Joint Operational Planning Process to develop five synchronized strategic contingency plans in support of joint operations, forces apportionment, commander priorities, and security cooperation.
- Crafted CEO-level updates as action group lead in interagency course of action development, strategy-related issues, and special projects.

PROGRAM MANAGEMENT

- Led \$653K test program resulting in a two-fold increase in chemical protection equipment form, fit, and function for 12,000 aircrew.
- Spearheaded \$75K laser eye protection test; identified shortfalls and advocated fix of 1,500

units, protected 3,342 aircrew from laser threats.

- Directed \$55K/15 member joint helmet integration test; reduced equipment requirements by 45%--increased capabilities for 3,000 aircrew.
- Led \$216K helmet noise reduction test which identified ten crucial suitability shortfalls and reduced noise 75% for 9,000 aircrew.
- Led \$124.5K ejection seat test, identified three deficiencies in seat modification procedures, improved safety of 1,900+ aircraft.

SOFTWARE AND PROGRAMMING LANGUAGES

- Productivity: Microsoft Office, Excel, PowerPoint
- Typesetting: Latex
- Operations Research: AMPL, CPLEX
- Computing: R, Matlab, Mathematica
- Coding: C++, Python

WORK HISTORY

LIFEGUARD, DEC 2016 – PRESENT: Evergreen Parks and Recreation, Evergreen Colorado
RESEARCH ASSISTANT, JAN 2016 – PRESENT: Colorado School of Mines, Golden Colorado
TEACHING ASSISTANT, SEP 2016 – DEC 2016: Colorado School of Mines, Golden Colorado
B-1 MECHANICAL ENGINEER, AUG 2014-DEC 2015: Dyess Air Force Base, Texas
STRATEGIC PLANNER, MAY 2013-JUL 2014: Al Udeid Air Base, Qatar and Amman, Jordan
CHIEF, RANGES AND AIRSPACE, AUG 2012-MAY 2013: Dyess Air Force Base, Texas
WING SCHEDULER, JAN 2012-AUG 2012: Dyess Air Force Base, Texas
ASSISTANT DIRECTOR OF OPERATIONS, AUG 2010-JAN 2012: Eglin Air Force Base, Florida
PILOT, MC-12, DEC 2009-AUG 2010: Joint Base Balad, Iraq
PROGRAM MANAGER, OPERATIONAL TEST, JAN 2009-NOV 2009: Eglin Air Force Base, Florida
PILOT, B-1, MAR 2006-JAN 2009: Ellsworth Air Force Base, South Dakota
STUDENT PILOT, JUL 2003 – FEB 2005: Sheppard Air Force Base & Dyess Air Force Base, Texas
RESEARCH ASSISTANT, SEP 2001-JUN 2003: Draper Laboratories, Cambridge Massachusetts

OTHER FLYING EXPERIENCE

MILITARY

Total Hours/Combat Hours: 1486/842
Aircraft Flown: T-37, T-38, B-1B, MC-12

CIVILIAN

Private Glider License, 2001-Present; Commercial Glider License, 2002-Present
Private Pilot License, Single Engine, 2001-Present
Instrument Rating, 2002-Present
Multi-Engine Land Commercial License, 2004-Present
BE-300 (King Air 350) Type Rating, 2011-Present

PROFESSIONAL SOCIETY

TAU BETA PI ENGINEERING HONOR SOCIETY, 1999 - Present
PRESIDENT, Colorado Zeta Chapter, 2001