EXPERIENCE

Apr 2007 – Dec 2007 **Principal Systems Engineer, Raytheon**, Aurora CO

- Integration and Test for a large national system.
- Computer languages: Fortran, Pascal, C, Perl, Postscript, Java, Matlab.
- Clearance: TS-SCI from January 1997.

May 2002 – Mar 2007 **Systems Engineer, Northrop Grumman Mission Systems**, Aurora CO

- Responsible Engineer for leading Mission Packages through the System Engineering, Software Development, and IT&D phases of the product life cycle for a large operational system. Led teams of engineers to develop requirements, architect software and hardware solutions, communicate with customers, keep management informed, and manage the budget and schedule.
- Led the Advanced Studies Group for advanced algorithm development and technology transfer from R&D groups into an operational system.
- Worked on a government-contractor team to establish and refine requirements (flowing down from system to component level), test verification plan, technology roadmap, Interface Control, and Concept of Operations for new mission payloads and data types.

May 1999 - May 2002 **Senior Scientist, TRW Systems & Information Technology Group,** Aurora CO

- Performed advanced R&D for radar algorithms, focusing on applying image processing, machine vision, and SAR concepts to world-class signal processing challenges for government and military customers.

Sept. 1996 - May 1999 **Senior Scientist, General Dynamics Information Systems,** Englewood CO

- Investigated subpixel linear demixing for hyperspectral remote sensing.
- Algorithm development for Synthetic Aperture Radar, target tracking, and intelligence-related applications.
- Attended SAR short course at Sandia National Labs.

Sept. 1989 - July 1996 **Principal Engineer/Scientist, Lockheed Martin Idaho Technologies, Inc.**
Idaho National Engineering Laboratory, Idaho Falls, ID

- Laser and plasma physics member of the INEL SETA assessment team for verifying the computer model and technical feasibility of the LLNL Uranium Atomic Vapor Laser Isotope Separation process.
- Investigated algorithms for real-time automatic target recognition systems using parallel processing and fuzzy logic AI techniques.

EDUCATION

University of Michigan Ann Arbor, MI

1989 Ph.D., Nuclear Engineering. Thesis title: "Emission Spectroscopy of the Interaction of a Long Pulse Relativistic Electron Beam with Rare Gases and Air."
1987 M.S.E., Nuclear Engineering.
1985 B.S.E., Engineering Physics.
13 publications