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Louis Larosiliere  
Senior Director Aero & Hydrodynamics Engineering  
Quechee VT - Email me on Indeed: indeed.com/r/Louis-Larosiliere/bf0d65b129796ae6  
WORK EXPERIENCE  
Senior Director Aero & Hydrodynamics Engineering  
Concepts NREC - Wilder VT - January 2006 to April 2014  
Plan and direct all turbomachinery aerodynamic/hydraulic design and R&D activities for a diverse cross-section of industrial and government clients.  
 Provide technical and programmatic direction to over a dozen engineers engaged in the engineering of advanced turbomachinery components and systems.  
 Expertise in most turbomachines especially advanced axial fan and compressor designs. Consistently deliver the highest quality engineering designs with 100% client satisfaction.  
 Maintain core competency and relevancy by leveraging government sponsored R&D efforts in technology innovation.  
 Develop new business through marketing and sales campaigns Recruit mentor and develop engineering staff.  
Senior Researcher/Technologist  
U.S. Army Research Lab at NASA GRC - Cleveland OH - February 1992 to December 2005  
Responsible for advocating planning and executing turbomachinery and propulsion  
systems technology development aimed at enhancing performance. Developed state-of- the-art simulation methods in support of advanced turbomachinery aero design and  
analysis. Established appropriate technology investment areas for resolving U.S. Army  
propulsion and power logistics problems in collaboration with technologists and other  
personnel from NASA GRC industry and universities. Basic specialties and core  
competencies include: aerodynamic shape design and performance optimization;  
application of active flow-control to intelligent propulsion and power systems; unsteady  
gas dynamics of fluid machinery; high speed aerodynamics and reacting flows;  
aeropropulsion system design and analysis; thermofluids modeling and simulation of hybrid gas turbine and fuel cell power systems. Directed a team of researchers in  
assembling and developing the technology base for the next generation (NASA's UEET) of high-performance compact multi-stage compressors in aerospace propulsion and power. Other duties included serving as a technical focal point for air-breathing  
propulsion aerodynamic modeling and design at the U.S. ARMY Research Lab.  
Research Associate  
University of Tennessee Space Institute - Tullahoma TN - January 1989 to December 1991  
Researched and applied CFD algorithms for multi-phase chemically reactive flows. Developed a bipropellant spray combustion analysis tool based on the Los Alamos KIVA code to support rocket thrust chamber design. Wrote a winning proposal for conducting computational research in rocket engine bipropellant spray combustion under NASA sponsorship. Performed a comprehensive parametric study of the combustion characteristics of a small satellite rocket thruster equipped with a pintle spray injector resulting in a substantial reduction of the development time.  
   
Lead Engineer  
Williams International Walled - Lake MI - August 1987 to December 1989  
Responsible for the design analysis and testing of gas turbine compressors. Directed technicians in development testing for numerous high-performance small axial compressors including instrumentation definition data reduction and synthesis. Executed the aerodynamic design of an advanced highly-loaded three-stage axial compressor from concept development to detailed flow path and blading design including iterations with aeromechanics specialists. Created and developed conceptual design and performance evaluation software for axial compressors. Consulted on gas turbine aerodynamics development issues and thermodynamic cycle performance assessment.  
Turbomachinery Engineer  
GE-Aircraft Engines - Lynn MA - July 1985 to August 1987  
Responsibilities included the aerodynamic design and development of advanced  
compressors. Produced conceptual and detailed designs for several innovative aero- engine axial and centrifugal compressors. Instrumental in the successful aerodynamic  
redesign of two production fans and compressors. Substantially reduced the design and development time of a high-performance fan through the expert application of state-of- the practice computational aerodynamics (CFD) and structural mechanics tools.  
Research Associate  
Karman Institute for Fluid Dynamics - September 1984 to July 1985  
Principal investigator on the modeling of rotating stall in axial-flow compressors.  
Designed instrumentation system for measuring the flow structure within a rotating  
blade row in deep stall. Performed theoretical and experimental investigations on the inception and evolution of rotating stall. Tested analyzed and gained insight into the  
development of centrifugal pumps airfoil cascades turbochargers and axial blowers.  
Obtained valuable international collaborative R&D experience via interactions with  
European/NATO scientists.  
EDUCATION  
Doctor of Philosophy (Ph.D.) in Aerospace & Mechanical Engineering  
University of Tennessee - Knoxville TN  
Post Graduate Diploma in Fluid Dynamics  
Karman Institute for Fluid Dynamics  
Master of Science in Aerospace Engineering  
University of Tennessee - Knoxville TN  
B.S. in Aerospace Engineering  
Boston University - Boston MA