

# NATHAN SCANDELLA

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<b>EDUCATION</b>	B.S., Engineering & Applied Science, <a href="#">Caltech</a> (GPA: 3.81) 1996 M.S., Aeronautics & Astronautics, <a href="#">Stanford</a> (GPA: 3.67) 1997
<b>EXPERIENCE</b>	Contract Embedded Software Developer, The Insitu Group, Inc. 2007 Distributed middleware implementation for embedded avionics, transport layer coding, and build process improvements. Contract Software Developer, Volt Technical Services 2004-7 Rational Unified Process design, coding, review and integration of electronic warfare and voice communication software for Wedgetail (Royal Australian Air Force) mission computing system. Embedded Software Designer, Boeing, Phantom Works 1999-2003 Systems architecture, artificial intelligence design, and implementation of high-level control algorithms for Unmanned Combat Air Vehicle technology demonstrator. Implementation involved developing requirements, writing and unit testing C++ code for use in <a href="#">UCAV</a> simulation, ground station, and embedded air vehicle mission processor. Systems architecture, detailed design, coding, hardware integration, test, and flight demonstration preparation for <a href="#">Weapon System Open Architecture</a> R&D program. System established a binary data stream, tunneled thru a secure tactical RF datalink layer, for conducting real-time collaborative mission replanning between an F-15 Fighter and an airborne command & control aircraft. Personal responsibilities focused on communications stack, application middleware, thread/process architecture, and frequency/bandwidth management for UHF LoS and SATCOM communication links. Manufacturing R&D, Boeing, Information, Space & Defense Systems 1998 Application of optical methods for improved large scale machining. Systems engineering on machine vision system for part inspection. Software development on real-time laser tracker system for better tolerance 5-axis composite trimming. NC control programming/interfaces. Embedded Software Designer, Boeing, Information, Space & Defense Systems 1996-7 Software development of an Open Systems Architecture for airborne surveillance platforms, such as the E-3/767 AWACS. Responsible for graphical interface applications, Ada95 language conversion, compiler transition, code portability issues, vendor support, and S/W debugging. Logistics Engineer, Northrop Grumman, B-2 Division 1995 Design of vehicle health monitoring algorithms, avionics, and composite battle damage repair, documentation of failure data, and reliability/maintainability estimations for trade studies. Programs included RLV/X-33 (@ Rockwell), B-2, and JAST(JSF). DoD "SECRET" clearance. Undergraduate Research Fellowship, NASA Jet Propulsion Laboratory 1994 NASA Flight Project research evaluating the viability of solar cells in the Mars Pathfinder power system. The fellowship involved writing a research proposal, designing the experiment, acquiring and assembling the apparatus, taking data, and presenting results (see Pubs).
<b>TECHNICAL SKILLS</b>	<ul style="list-style-type: none"><li>• focus/expertise: software systems architecture, Object-Oriented design, TCP/IP networking, RF communication, middleware, real-time embedded multi-threaded design</li><li>• languages: ANSI C, C++, C#, Java, Ada 95</li><li>• operating systems: proficiency with Windows, UNIX (Compaq Alpha, SGI IRIX, Sun Solaris), Linux</li><li>• misc. computing: CORBA, UML, HTML, AutoCAD, Mathematica, Matlab, ANSYS, Patran/Nastran</li></ul>
<b>PUBLICATIONS &amp; PRESENTATIONS</b>	<ul style="list-style-type: none"><li>• "<a href="#">Plug-In Transport With Dissimilar ORBs ...</a>", 1st OMG Embedded Object-Based Workshop 2001</li><li>• Publication, <a href="#">AIAA 96-0935</a>, Proceedings of 34th Aerospace Sciences Meeting ... 1996</li><li>• "Effects of Electrostatic Dust Precipitation...", AIAA 34th Aerospace Sciences Meeting... 1996</li></ul>