

RALPH W. BOAZ
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EMPLOYMENT HISTORY

Pillar Consulting, Inc.
San Diego, CA

01/02 - Present

President

Engineering, transportation and management consultant with 27 years of experience leading/developing successful government, commercial, and research projects/products. Project Manager for the Advanced Transportation Controller (ATC) Application Program Interface (API) and ITS Cabinet V2 projects. Prepared and presented program reviews to USDOT. Prepared and made presentations as part of a US contingent for the 2008 Standards in Trade Workshop in San Paulo, Brazil. Achieved Caltrans 2070 Qualified Products List (QPL) status for a client company. Instructor for the Outreach, Education and Training (OET) program for the Institute of Transportation Engineers (ITE). Represented client to numerous House and Senate members, DHS, DOJ, and FEMA. Member of ATC, Caltrans QPL and NTCIP (National Transportation Communications for ITS Protocol) workgroups and committees developing standards and specifications. Performed NTCIP Actuated Signal Control (ASC) testing for state agency.

- Systems Engineering
- System Integration and Testing
- Project Management
- Specification and Standards Development
- Process Design and Implementation
- Hardware/Software Development
- Communications, Networking & Security
- Concurrent Engineering & ISO 9000

Econolite Control Products, Inc.
Anaheim, CA

05/97 – 01/02

Vice President Engineering

Senior engineering manager delivering products and services to the traffic control industry. Formulated a product development strategy for the entire company instituting formal concurrent development processes. Developed and implemented engineering design, development and quality standards. Conceived and implemented a bid process for sales, marketing and engineering. Instituted a training program to retain and broaden core competencies. Built sub-contracting partnerships and college internship programs.

- First successful deployment of NTCIP ASC in transportation industry.
- Developed & brought ATC/2070 line to market.
- Achieved ISO 9001 certification.

Ball Corporation, Systems Engineering Operations
San Diego, CA

05/93 - 05/97
09/85 - 12/90

Section Manager Transportation Systems

Managed a software engineering group developing products and systems for commercial and federally funded projects. Responsibilities included software design and development using object oriented software engineering (OOSE), equipment and architectural decisions, project coordination with other contractors, customer interfacing, and interaction with various governmental agencies. Prepared and presented company training course on software engineering principles. Formulated and implemented a get-well plan for a struggling but vital product. Recognized by upper management for unifying department.

- Designed and developed real-time system to communicate with existing traffic management centers using OOSE, C++ and TCP/IP.
- Developed an automated system for the FHWA which identifies incidents on freeway systems using C++ and Windows NT.

Software Project Manager

Project manager responsible for the design and development of a large distributed system which integrates ground, aircraft, and GPS based time-space-position information and provides real-time and post-flight vehicle

track estimates for the Air Force. Duties included customer interfacing, feasibility analysis, design reviews, software design and development, MIL-STD-2167A documentation, and technical direction of engineering staff.

Computer Scientist

Worked on numerous projects involving traditional, distributed and advanced computer architectures. Designed and implemented network communications software. Conceived of and developed software to analyze resource allocations over a network for a multitasking distributed system. Designed and developed user interfaces utilizing windows and high resolution graphics. Principle investigator for an R&D project analyzing the applicability of various AI technologies to an existing military program. Architect of several prototype expert systems using various knowledge base organizations and inference techniques.

**San Diego Church of Christ
San Diego, CA**

12/90 - 05/93

Region Leader

Responsible for the growth of a large local congregation in selected geographical areas of San Diego. Developed and directed community programs, managed four levels of paid and volunteer staff, organized conferences and seminars, and performed motivational speaking to groups ranging in size from 6 to over 2000.

**Aerojet ElectroSystems Company
Azusa, CA**

10/83 - 09/85

Computer Scientist

Principle engineer for an R&D project combining AI and parallel processing technologies. Conceived, designed, and implemented a logic programming and knowledge base analysis system for a parallel processing architecture. Co-developer of a prototype expert system which analyzed and identified space-borne sensor data.

**General Dynamics Corporation, Data Systems Division
Pomona, CA**

06/81 - 10/83

Software Engineer

Lead engineer for statistical analysis programs for automatic test equipment data. Responsibilities included customer interface, requirements definition, software design and development, cost estimation, and technical direction of four engineers. Software support engineer for the plant Heating, Ventilating and Air-Conditioning (HVAC) system.

TECHNICAL EXPERTISE

Proficient in numerous programming languages, operating systems and computing platforms. MS Office Suite, MS Project, and Win A&D (CASE tool).

EDUCATION

Bachelor of Science in Mathematics, Magna Cum Laude, University of La Verne, La Verne, CA 06/81

AWARDS/AFFILIATIONS

National Institute of Standards & Technology (NIST) International Workshop, Sao Paulo, Brazil	2008
Member IEEE, ITE and INCOSE	1997-Present
ATC Controller, API and Cabinet Working Groups	1998-Present
Caltrans QPL Committees/Working Groups	1999-Present
NTCIP BSP, ASC and TSS Working Groups (TSS Chairman)	2002-Present
Numerous Papers, Conference Presentations, and Articles (list is available upon request)	2000-Present
Outstanding Engineering Achievement Award, Aerojet ElectroSystems Company	1985
Extraordinary Achievement Award, General Dynamics Corporation	1983