

James M. Sharpe

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Senior Technical Manager with 30 years of professional experience combining analytical and technical skills with strong leadership, communication, and organizational abilities

- 20+ years of commercial IT Analysis/ Design/Development Experience
 - 10+ years Internet Architectures
 - Tactical & Strategic Planning
 - Requirements Development & Analysis
 - Software Development Methodologies
 - Full Lifecycle System Realization
 - Teambuilding
 - Proposal Development
 - Technology & Vendor Evaluations
 - Production System Problem Resolution
 - Performance Mitigation
 - Big Data Real Time Analytics
 - Stream Processing
 - Semantic Processing
 - Natural Language Processing
 - Data Fusion for Situational Awareness
 - Service Oriented Architectures
 - Business Process Management Suites
 - Soft Reasoning Technologies
 - Composite Applications
 - Legacy System Integration
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Professional Experience

August 1993 - Present

FOUNDER/CHIEF TECHNOLOGIST Sharpe Engineering Inc. - Crested Butte, CO
Provide intelligent IT solutions from analysis, planning, and conceptual design through implementation, testing and deployment. Contributed in both management and technical capacities on projects ranging from enterprise application integration to custom vertical solution development and deployment. Experienced working with people and teams at all levels of an organization from individual developers to C level executives. Effective at bridging communication between both technical and nontechnical personnel. Published/presented research results at several industry conferences.

Recent work has focused on “big data” situations requiring *both* high performance *and* complex analytics. The solutions incorporate a mix of novel and traditional technologies and architectures to address a wide range of challenging DoD and private sector problems. Special emphasis has been on complex situational awareness and resource management use cases that are beyond the capabilities of traditional approaches. Key aspects include:

- Real-time stream processing to collect and process a wide range of *explicit* contextual information
- Real-time natural language and A/V processing to accommodate *unstructured* data sources
- Semantic analysis to produce *implicit* knowledge and “connect the dots”

Designed a novel distributed processing environment under an OSD/Navy research contract in the large data handling area. That particular project investigated how to leverage emerging technology from IBM to support widely distributed analytics in the context of Disconnected, Intermittent, and Low Bandwidth networks. Currently working with several partners to leverage the methods developed to address various “drowning in data” use cases. The approach integrates enterprise class, web scale semantic processing with a stream processing platform to produce “*better knowledge faster*”.

Other work investigated the practical application of semantic technologies and related tools to address common business needs. Completed contracts involved the development of a hybrid reasoning framework and a composite architecture for situational awareness. Characteristics included:

- Support for multiple analytical technologies (Bayes & neural networks, rule systems, fuzzy logic, GA optimization, etc.)
- Application of IBM's InfoSphere Streams platform
- Bottom up knowledge derivation including:
 - Data cleansing, feature extraction, detection, identification
 - Clustering and classification techniques
 - Decision support, risk analysis, “sensemaking”, and behavior simulation
 - Metadata to leverage information provenance and confidence values
- Service orchestration with commercial BPM suites
- Semantic mapping and ontology development
- Application of rule systems and inference engines
- Process analysis and simulation

February 2007 - January 2010

ENTERPRISE ARCHITECT *StoneRiver – Denver, CO*

February 2001 - August 2002

SENIOR MANAGER / SYSTEMS ARCHITECT *Arthur Andersen - San Francisco, CA*

August 1989 - August 1993

PROTOTYPING ENGINEER Spatial Technology - Boulder, CO

August 1990 - August 1992

SENIOR SOFTWARE ENGINEER Applied Technology - Boulder, CO

March 1987 - August 1989

SENIOR SOFTWARE ENGINEER Cadnetix/Daisy, Tools Group - Boulder, Colorado

January 1986 - March 1987

DEVELOPMENT ENGINEER Colorado Memory Systems - Loveland, Colorado

December 1984 - December 1985

SOFTWARE DESIGN ENGINEER Teksoft - Phoenix, Arizona

August 1984- December 1984

SENIOR ELECTRONICS TECHNICIAN ADR Ultrasound - Tempe, Arizona

October 1983 - August 1984

SOFTWARE TECHNICIAN Medtronic Micro-Rel - Tempe, Arizona

October 1979 - October 1983

ELECTRONIC TEST TECHNICIAN Motorola G.E.G - Scottsdale, Arizona

Education

BS - Computer Science, Arizona State University, Tempe Arizona.

BS - Electronics Engineering Technology, DeVry Institute of Technology, Phoenix Arizona.

TAU ALPHA PI Honor Society, Presidential Honor Society.