

# WILLIAM DAN TERRY

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## *Summary of Qualifications*

Expertise in system architecture, design, and development distributed systems, data-mining, fusion, correlation, and profiling applications, Internet applications, geographical information systems, modeling/simulation, command, display and control, and expert systems, including emphasis on mission critical user-interfaces. Design and analytic skills used in projects ranging from system prototyping to research based on novel concepts. Management of development and research projects requiring coordination with multiple customers. Extensive background in all phases of system development life-cycle from technical design to maintenance.

## *Software Development*

- Novel flexible metadata architecture and distributed system, with mapping to other metadata systems.
- Large-scale, event-driven, distributed systems for heterogeneous data.
- Web-based collaborative tool for distributed inter-agency processing of refugees with tiered security access.
- Medical analysis and management.
- Inter-bank Mortgage batch re-sale management.
- Novel system for flexible matching among data sets.
- Data-mining, correlation, and profiling systems to handle both real-time streaming data and dynamic heterogeneous data corpora.
- Custom e-commerce solution.
- Customized WWW functionality as an interface to an Internet-distributed information system.
- E-government work flow and user interface with express consideration of usability and accessibility.
- Real-time geographical information system.
- Scientific computer programs for the simulation and modeling of physical phenomena.
- Large-scale command, display and control system.
- Expert system development environment and prototype expert systems for engineering system analysis.

## *Engineering*

- Performed basic research, including the analysis of first-principle phenomena, and guided development of prototype systems.
- Performed theoretical analyses for the development of engineering designs.
- Defined the critical design parameters of modeled systems and recommended improved designs based on model analysis.
- Pursued novel technology, including feasibility studies, presented to industry.

## *Computer*

- UNIX/Linux, microcomputer, mainframe.
- PHP 2-8, C++, C, JavaScript, PERL, VB, C#, FORTRAN, LISP, Prolog, CMS-2/Ultra16, UNIX Shell scripting
- USDP/UML Design Modeling, Domain-Driven Design (DDD), Test-Driven Development (TDD).
- HTML, CSS, JavaScript, AJAX.

## *Education*

Bachelor of Science in Engineering (BSE) in Engineering Physics,  
College of Engineering, The University of Michigan.

## *Affiliations*

American Association for Artificial Intelligence  
Internet Society

*Senior Software Engineer*

**Spatial Front** - Bethesda, MD 2024 – Present

- National Oceanic and Atmospheric Administration (NOAA) Weather and Climate Computing Infrastructure Services (WCCIS). Distributed system development and maintenance of operational software for the collection, management, and dissemination of National Weather Service data. WCCIS contract.
- PHP, Python, Java, PERL, MongoDB, Unix scripting.

*Software Developer and Support*

**Guidehouse Digital** - McLean, VA 2023 – 2024

- National Oceanic and Atmospheric Administration (NOAA) Weather and Climate Computing Infrastructure Services (WCCIS). Distributed system development and maintenance of operational software for the collection, management, and dissemination of National Weather Service data. WCCIS contract.
- PHP, Python, Java, MongoDB, Unix scripting.

*Senior PHP Software Developer*

**The Judge Group** - Wayne, PA 2023 – 2023

- National Oceanic and Atmospheric Administration (NOAA) Weather and Climate Computing Infrastructure Services (WCCIS). Distributed system development and maintenance of operational software for the collection, management, and dissemination of National Weather Service data. Contractor for Guidehouse Consulting, LLP on WCCIS contract.
- PHP, Python, MongoDB, Unix scripting.

*Software Engineer*

**SitusAMC** - New York, NY 2019 – 2022

- Enhancement of RateLock - system for management of batch purchase of mortgages by top banks. Add configurable features as requested the large bank clients. Work with business analyst to effect loan analysis rules for each product particular to each client. Developed business logic for the back-end and user interface features.
- PHP 5-7, MySQL, Unix scripting, HTML, AJAX, JavaScript.

*Software Tools Engineer*

**Productive Data Commercial Solutions** - Arvada, CO 2018 – 2019

- Enhancement and maintenance of software testing tools at United Launch Alliance used for pre-launch, launch, and in-flight spacecraft management.
- PERL, Oracle, Unix scripting, HTML, AJAX, JavaScript.

*Web Architect*

**Rose International, Inc.** - St Louis, MO 2015 – 2017

- Designed and developed the system architecture, data architecture, user experience, and business logic of tools for handling requests for, design of, and management of computer server sets for same major healthcare company as for Apex Systems at request of healthcare company. Worked with user groups to identify requirements. These tools were designed for use by the teams responsible from financial requisition to life cycle management and employ faceted work flow support. Contributed to the requirements definition of a single replacement system with the same core features and usage approach as the tool suite.
- Worked with interns in developing functionality for these tools and in support of their practical computer science education.
- Software Engineering and System Administration policy and procedure definition and implementation.
- PHP 7, Zend MVC, MySQL, Unix scripting, HTML, AJAX, JavaScript, USDP/UML, DDD, TDD.

*Senior Software Engineer*

**Broadnet Teleservices** - Denver, CO 2015 – 2015

- Designed and developed part of new polling functionality for national and international telephone-based town-halls serving thousands of concurrent participants. Contributed to requirements development for initial release and future phases.
- PHP 5, CodeIgniter MVC, MySQL, Unix scripting, HTML, AJAX, JavaScript.

*Web Architect*

**Apex Systems, Inc.** - Denver, CO 2012 – 2015

- Designed and developed the system architecture, data architecture, user experience, and business logic of tools for handling requests for, design of, and management of computer server sets for a major healthcare company. Worked with user groups to identify requirements. These tools were designed for use by the teams responsible from financial requisition to life cycle management and employ faceted work flow support. Contributed to the requirements definition of a single replacement system with the same core features and usage approach as the tool suite.
- Worked with interns in developing functionality for these tools and in support of their practical computer science education.
- Software Engineering and System Administration policy and procedure definition and implementation.
- PHP 5-7, Zend MVC, MySQL, Unix scripting, HTML, AJAX, JavaScript, USDP/UML, DDD, TDD.

*Senior Software Engineer*

**HiDef, Inc.** - Denver, CO 2010 – 2012

- Designed and developed the system architecture, data architecture, and usage logic of the largest digital collection of Bibles in text, audio and video media; 1200+ languages; 150+ Bible versions, like Roman Catholic Version, Romanian Orthodox Bible, and Coptic Orthodox Canon. Designed and developed the API through which all access and management of the volumes in the library is performed to ensure consistency and data integrity.
- PHP, Zend MVC, MySQL, Unix scripting, HTML, AJAX, JavaScript, WP, AWS, USDP/UML, DDD, TDD.

*Software Engineer*

**Byrne Healthcare, LLC** - Denver, CO 2008 – 2009

- Designed and developed a flexible and extensible Web application for medical analysis and management.
- Designed and developed additional functions leveraging the ease of extensibility of the medical analysis and management system.
- PHP, Zend MVC, MySQL, USDP/UML, DDD, TDD.

*President & Founder*

**Knotworks/Lodestone Systems, Inc** - Fort Collins, CO 2000 – 2008

- Provided consulting services to clients in Colorado, Wyoming, California (Silicon Valley), and Poland.
- Designed and developed a novel metadata architecture and distributed system that is flexible and easily mapable to other metadata systems.
- Designed and implemented a comprehensive information cataloging system.
- Developed traffic modeling software.
- Designed State e-government workflows, system architecture, and user-interfaces.
- Utilized open-source CMS products, and created custom modules, for collaborative user projects.
- C++, PHP, C#, VB, Zend MVC, MySQL, Drupal, PHPNuke, Midgard, Unix scripting, USDP/UML, DDD, TDD.

*CTO/CIO, System Architect & Co-Founder*

**Liquid Cognition, Inc** - Cheyenne, WY 2003 – 2005

- Provided consulting services to clients in Wyoming and Colorado.
- Designed and developed a new complex registry system containing sophisticated time and data relationship rules and structured for robust ability for enhancements.
- Designed State e-government workflows and user-interfaces.
- Provided technical direction on various projects.
- Planned and managed company IT infrastructure, policy, and resources.
- C++, VB, C#, PHP, Unix scripting, USDP/UML, DDD, TDD.

*System Architect & Co-Founder*

**New Sage Consulting** - Cheyenne, WY 1999 – 2001

- Designed and implemented novel system for finding matches among datasets.
- C++, Unix scripting.

*President & Co-Founder*

**ToDineFor.com, Inc** - Fort Collins, CO 1998 – 2004

- Provided direction and implementation for company on technical and business matters including system architecture design and development of patent pending distributed system, Internet security, software implementation, usage, and management, and research and incorporation of new technologies.
- C++, PERL, MySQL, Unix scripting, USDP/UML, DDD, TDD.

*Director of Technology & Co-Founder*

**NetPubs International LLC** - Fort Collins, CO 1996 – 2000

- Provided direction for company on all technical and business matters including Internet security, software implementation, usage, and management, and research and incorporation of new technologies.
- Designed and developed customized data-mining, correlation, and profiling tools used for research.
- Designed and developed web-based collaborative tool for inter-agency processing of refugees with tiered security access. KosovoNet involved the Internet Society, Wladyslaw Poniecki Foundation, US State Department, and other aid agencies and organizations.
- Designed and developed customized subscription management system.
- Designed and developed custom software applications, many including Internet interface.
- C++, PHP, MySQL, Unix scripting, USDP/UML, DDD, TDD.

*Consultant*

**Booz-Allen & Hamilton** - Vienna, VA 1995 – 1997

- Provided high-level design advice.
- Designed and developed large-scale, distributed systems from system architecture to user-functionality.
- Designed and developed customized World Wide Web functionality as an interface to an Internet-distributed information system.
- C++, C, PHP, Unix scripting.

*Software Designer*

**Booz-Allen & Hamilton** - Vienna, VA 1993 – 1995

- Designed and developed large-scale, distributed systems from system architecture to user-functionality.
- Designed and developed customized World Wide Web functionality as an interface to an Internet-distributed information system.
- Performed object-oriented software design and development for man-machine interfaces.
- Performed system marketing and managed implementation logistics.
- C++, C, PHP, Unix scripting.
- TOP SECRET/SCI Clearance.

***Project Manager***

**BTG, Inc. - Vienna, VA 1991 – 1993**

- Managed project and personnel for multiple customer, object-oriented software system. Responsible for defining product features and providing the system engineering and technical design.
- Performed object-oriented software design and development for a geographical processing system operating on microcomputer platforms.
- Created object-oriented programs and tools used for development and system installation.
- C++, C, Unix scripting.
- TOP SECRET/SCI Clearance.

***Consultant***

**Innovative Technologies - Potomac, MD 1991**

- Provided technical software and architecture design, development and testing for a commercial, numerically controlled machining system.
- C++.

***Programmer/Analyst***

**Microlog Corporation - Germantown, MD 1991**

- Provided solutions for communications handling in a distributed telecommunications system.
- C.

***Engineering Physicist***

**Defense Research Technologies, Inc. - Rockville, MD 1986-1990**

- Designed and implemented computer models/simulations and an expert system for engineering research and development applications.
- Performed basic engineering research and analyzed engineering systems utilizing novel control system technology.
- C++, C, FORTRAN, LISP, Prolog.
- SECRET Clearance.

***Engineer***

**Vitro Corporation - Silver Spring, MD 1985-1986**

- Developed target tracking, search and rescue, system configuration, operator interface and chart digitizing functions for the US Coast Guard Medium Endurance Cutters' distributed command, display and control system.
- Designed and performed tests to validate the system.
- CMS-2/Ultra16.
- SECRET Clearance.