

# Martin Milligan

Fairmont, WV • martin@martinmilligan.me • 301-801-2643

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**Transformative system engineer & software development leader**, sought out to develop and implement creative system and software strategies that enhance performance, generate efficiencies and reduce costs. Known for identifying issues, providing innovative solutions, effectively communicating complex ideas and leading teams to deliver an outstanding user experience. Skilled at building and retaining high performance, interdisciplinary teams and cultivating collaborative, strategic vendor partnerships.

- Software Strategy
- Data Structures & Algorithms
- Software Development, SDLC
- Project Management
- Extreme Programming (XP)
- Agile
- Architecture Design
- Vendor Management
- Budget Management
- Performance Optimization
- Change Management
- Team Building & Leadership

## High-Impact Results

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@ Mountain State Digital

**Enabled start-up to develop revenue-producing product while acquiring customers.** An AI based system development startup needed to verify demand for their product and were signing up new customers before the minimal viable product (MVP) was finished. The company's consultant advised against this. Suggested establishing a special program for initial customers, allowing start-up to bring on customers while perfecting the product.

@ NOAA

**Recruited to rescue difficult CLASS contract, successfully completing project on time with \$1M in annual savings.** Contract involved readying system for new generation of weather satellites. Established workable software plan. Role was expanded to include a data access system and all of the hardware and networking for a three location archive. Completed project, equipping archive to support all of the planned satellite launches.

**Transformed procurement, simplifying design, improving probability of success and decreasing budget by \$5M.** The original CLASS contract included a complex hardware design that would be expensive and time consuming to build with no proof that it worked. Changed process, allowing best vendors to participate in designing the solution, incorporating their engineering experience to generate new approaches to the final design.

**Introduced smoother development and release process by changing software development methodologies.** Team was struggling to update CLASS archive which had been created using a waterfall methodology. Re-planned project in collaboration with team leads, implementing XP practices. Integrated the new development threads into the legacy release process, reducing the release time from greater than a week to just a few hours.

@ EDS

**Reduced custom code footprint & support needs by introducing pattern based system design.** EDS WYO adopted object oriented technology. Built system using proven patterns of designs, enabling team to easily port between object oriented technologies and replace internally developed subsystems with commercial products when they became available.

**Improved employee retention by developing fully remote team solution.** Company required highly skilled, costly to train team members, making retention a priority. Remote solution supported onshore and offshore distributed teams. Built and retained top team of project oriented engineers.

**Generated efficiencies by using model driven software development in the highly complex insurance domain.** Used diagramming tools to model requirements in a simple graphical manner. This resulted in a system with significantly fewer defects and improved test case development and coverage. It also delivered requirements that were easy to maintain, easy to understand by users and were portable across technologies.

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## Professional Experience

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### **Mountain State Digital** (dba Digital Onramp WSI) | 2019 to present

*Technology and marketing company specializing in small businesses.*

#### **Owner and Founder**

- Launched company, providing tools and advice to support small business expansion.
- Built international team, providing CRM, web and app development, SEO, and advertising.
- Delivered technology solutions that required managing multiple projects and project managers concurrently.
- Saved client companies money by moving in-house data processing to the cloud.
- Designed the company with autonomous teams and aligned interests with the customer's needs.

### **DB Consulting Group** | 2009 to 2017

*Leading global professional services firm, delivering strategies, operations and innovative technology solutions.*

#### **Acting CIO** – NOAA CLASS Development Project

- Led ~90 employees and a \$20M budget, supporting next-generation polar & geostationary satellite programs.
- Managed hardware, networking, procurement, capacity planning, and software development teams.
- Increased data archive infrastructure capability from <1TB to >12TB daily, with plans to build to >50TB daily.
- Built and led an integrated team of engineers, administrators, developers, testers, and vendors that consistently delivered on-time releases and predictable financial results.
- Migrated the archive to High-Performance Storage System (HPSS) and implemented General Parallel File System (GPFS) for large data volumes and file counts, and MongoDB infrastructure for reduced load on relational databases and increased search options.
- Negotiated support agreements with hardware and software vendors, lowering maintenance cost by 40%.
- Designed hardware and network infrastructure for receipt nodes and archive extensions, and a hierarchical storage system (HSM) that can be scaled for the expected life of the system.
- Presented material for NASA CDR events for the Geostationary Operational Environmental Satellite - R Series (GOES-R) and Joint Polar Satellite System (JPSS) programs.
- Developed Java & REST APIs for searching and accessing data across multiple archives.
- Implemented a fully integrated Java development environment with an automated build process, dependency management, and regression testing for a distributed development and test team.

### **Electronic Data Systems (EDS)** | 1998 to 2009

*\$13.9B company acquired in 2008 by Hewlett-Packard (HP).*

#### **Advanced System Engineer**

- Delivered projects for major insurers, generating \$30M to \$50M in annual revenue for EDS.
- Managed teams of up to 20 and sought out as a project rescue specialist.
- Key player on team that supported specialty insurance products: built the next generation of insurance products and integrated new acquisitions, customer systems, and vendor products.
- Pioneered, designed, implemented single sign-on access to insurance systems through customer applications.
- Reduced claims processing time at least 50% integrated with other applications by designing and building a claims management system using Spring, Struts/JSTL, JSP, XSLT, AJAX, JavaScript, CSS, and Castor.
- Enabled insurance client-server and web applications to use the same high-end print services used in batch systems by generating bills and declaration pages using Castor, XML/XSLT, Opus, and Deliveryware.
- Reduced operating cost and allowed the GDS acquisition to become profitable by restructuring Assigned Risk Insurance Systems to use 90% fewer resources and exceed all availability service level agreements.

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## Education, Certification & Board Membership

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**BS, Math & Physics**, Westminster College, New Wilmington, PA

WSI Digital Marketing Consultant

WSI AI Advisory Board

**Other Interests:** Provide private loans for property renovation and resale & invest in real estate syndicates.