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| **Philip Zubaly**  7516 Arlington Blvd.  Falls Church, VA 22042  telephone: (703) 207-3420  email: zubaly@z-ware.com | **z-ware_logo** |

**President, Z-Ware Engineering, Inc.** -- Independent software engineer specializing in the design and development of innovative and efficient software solutions. Extensive experience with the complete Microsoft stack of technologies. Experience leading varied development efforts. Over twenty years of professional experience. Excellent communication skills. US citizen.

## Computer and Software Development Capabilities

- **Operating systems/platforms**: Windows Server 2019 and earlier, Windows 10, Windows 7, Microsoft Azure, Vista, XP, 2000, NT, 9x, UNIX, DOS

* **Database development**: SQL Server, Azure SQL, MySQL, Oracle, Java, XML, PL/SQL, Transact-SQL, SQL, Access
* **Languages/technologies**: Microsoft .NET, C#, ASP.NET, MVC, MVVM, SignalR, Java Script, JQuery, TypeScript, Java, VB.NET, VBA, VB Script, ASP; XML, XSL, HTML, CSS, C++, C
* **Design**: Information Analysis and Modeling, ER, ORM, IDEF1x, IDEF0, UML, OOD
* **Other technologies**: OOP, Web Services, WPF, Silverlight, WCF, WSE, DCOM, COM+, ActiveX, SOAP

## Project Highlights

1. **March 2014 – Present:** As a sub-contractor in support of the National Oceanic and Atmospheric Administration (NOAA), performed requirements analysis, system design, and product development for Scientific Computer System (SCS) version 5, which is a complete redesign and ground up rewrite of the real-time scientific data acquisition system that is currently used on all NOAA ships and many other ships across the globe. The new system is being developed in ASP.NET MVC 5, using SignalR for inter-process communication, Telerik UI tools, and a MySql database.
2. **September 2006 – Present**: As a sub-contractor in support of NOAA, designed, developed, and currently maintaining a web-based database system that stores NOAA’s ship schedules, gathers daily activity information from deployed ships, and provides varied reports. This Ship Daily Activity Log (SDAL) system is being maintained and updated based on changing user requirements. This is a long running and constantly updated system that is currently built with C# and ASP.NET MVC using Telerik’s UI tools and an Azure SQL database. Maintain weekly meetings with NOAA customers to gather new requirements for implementation.
3. **May 2014 – November 2016:** As a sub-contractor in support of NOAA, designed, developed, and maintained an SCS module that synchronizes shipboard sensor configuration data with a shore-side database, providing a centralized store for the fleet’s scientific sensor capabilities. A Windows service on each ship’s SCS server transmits the data to a shore-side WCF service that then ingests the data into the centralized Fleet Sensor Database (FSDB). The history of sensor configuration changes is pushed ashore, and capability is also provided to pull the history into the shipboard system.
4. **January 2011 – February 2012:** As a sub-contractor in support of NOAA, designed and developed a Silverlight 4 web-based reporting tool that allowed users to run detailed ad-hoc queries against SDAL data. The ad-hoc queries could be saved, and the data exported to various formats.
5. **November 2010 – December 2013:** As a sub-contractor in support of NOAA, gathered requirements, performed database design, and providing database development and team oversight for an application to be used by the NOAA Diving Program to help manage their divers, dive logs, and equipment. This NOAA Dive Program Dive Management System (NDPDMS) was developed in Silverlight with WCF RIA Services and a SQL Server database.
6. **May 2010 – July 2010:** As a sub-contractor in support of NOAA, developed a Windows Presentation Foundation (WPF) application to provide details and pictures of shipboard sensor devices through the web. This application presented fleet-wide device metadata input on each ship using the SCS Configuration Editor detailed below. The WPF browser application used a Windows Communication Foundation (WCF) service as a data access layer.
7. **November 2007 – October 2016**: As a sub-contractor in support of NOAA, designed and developed the SCS Configuration Editor -- a database and windows forms application that stores the information required to define a ship’s electronic sensors and the messages that they send. The sensor configuration information is used for real-time data acquisition and display applications. This configuration editor replaces an older file-based system within NOAA’s larger SCS, and was being constantly maintained and updated. Developed with .NET and a SQL Server database. This system is currently in use on NOAA’s ships and other vessels, but is being replaced by the soon to be released SCS version 5.
8. **May 2006 – November 2009**: Consultant/Subcontractor to Computer Sciences Corporation (CSC), Washington, DC. Designed business processes to support the MPF(F) ship design program. Developed workflows and reports in Open Text’s LiveLink platform. Provided varied IT and software engineering support as needed by the program.
9. **October 2005 – December 2006**: As a consultant to RS Information Systems and in support of NMAO, implemented a business process management system to support the office. The system was built on Handysoft’s BizFlow platform. Designed and developed a task tracking process using BizFlow development tools and API.
10. **November 1996 – September 2006**: As a consultant to CSC, and in support of several Naval Sea Systems Command (NAVSEA) ship design programs, served as lead developer on a project designing, developing, maintaining, and modifying a web-based document and process management system tailored for the needs of a ship design program.

The system (SWIFT) included an extensible workflow module with process-driven routing of documents along with email notifications, role-based rights and security, audit trail maintenance and scheduling. A search engine was provided that allowed for detailed searches across all document types in the system.

The system was updated regularly to meet new customer needs. Due to the longevity of this project, a wide variety of technologies were utilized, but the core system consisted of an ASP.NET web interface with .NET middle tier components and an Oracle database. The database delivered documents as XML via java and PL/SQL procedures.

1. **October – December 2004**: Reengineered and developed an application to extract US bank evaluation data from a SQL Server database (migrated from a mainframe flat-file environment) and output to comma-delimited data files, which were used as input for an existing DOS application that used the data to generate quarterly bank evaluation reports for the US Treasury’s Office of the Comptroller of the Currency. System included data extraction stored procedures (Transact-SQL) and a controller application written in .NET (C#).
2. **May 1997 – June 1998**: As a consultant to Manor Care Health Services, performed database and application design and development for a centralized clinical data repository system.
3. Automated processes receive clinical data from nearly 200 nursing home facilities and load into an Oracle database (VB5, Oracle PL/SQL)
4. Detailed error capture, logging, and recovery for automated data load
5. Data cleaned and normalized using Oracle PL/SQL packages.
6. **July 1996 – December 1996**: Performed database design and server-side development for a marketing and sales management system for Manor Care Health Services.
7. IDEF1.x and IDEF0 models detailing the marketing/sales data and process involved
8. Oracle 7 database
9. **June 1995 - May 1996**: Developed and maintained an information model and prototype database software that automated the Navy’s Acquisition Planning process. Software development involved automating the Master Acquisition Planning Program (MAPP), an Acquisition Reform initiative that consolidated over 100 acquisition and logistics plans.
10. **December 1994 - June 1995**: Performed software support and marine engineering tasks for the NAVSEA’s Sealift Program.

## Previous Work History

**Shipboard Licensed Marine Engineer Positions:**

All licensed positions include the responsibilities of start-up, operation, and shutdown; maintenance, troubleshooting, and repair of propulsion, auxiliary, electrical, and hotel systems; as well as personnel supervision.

* **August 1992 - February 1996:** Commercial Shipping for MEBA District I, Baltimore, MD. Various licensed positions held
* **August 1989 - July 1992: Licensed Operating Marine Engineer**, Military Sealift Command (MSC), Bayonne, NJ.

**July 1984 - July 1989: Marine Engr.,** Advanced Marine Enterprises, Inc., Arlington VA

Consulted with clients to identify technical problems; researched task requirements; gathered information through plant surveys and consultations with vendors, operators, and regulatory bodies; and developed the necessary system design.

## Education

B.S., Marine Engineering Systems, US Merchant Marine Academy, 1984

## Licenses/Certificates

* Professional Engineer, 1994, Virginia (Inactive)
* USCG 1st Assistant Engineer License, Motor Vessels, Unlimited HP (Inactive)
* USCG 3rd Assistant Engineer License, Steam Vessels, Unlimited HP (Inactive)