

<b>Name:</b>	<b>Matthew Hanna</b>	<b>Labor Category:</b>	<b>Software Engineer</b>
<b>Address:</b>	<b>8520 Southlawn Ct., Alexandria, VA 22309</b>	<b>Phone:</b>	<b>401-480-8244</b>
<b>Email:</b>	<b>matthew@matthewhanna.net</b>	<b>Employment Status:</b>	<b>Employed</b>
<b>Education:</b>	Clemson University, M.S., Computer Science, May 2001. Coastal Carolina University, B.S., Computer Science with Mathematics Minor, December 1998 Additional Training/Certifications: ASP.Net Core, Migrating to Micro-services, UML Essentials, Web Applications, React, Presenting Presentations, Problem Decomposition and JMPS 1.5.303 App & Micro-kernel Training		
<b>Total Years of Experience:</b>	22	<b>Security Clearance:</b>	Secret

#### Professional Summary:

Strong programming knowledge in C# implementation using Requirements, Specifications and Constraints  
Strong experience in employing Unit Testing (MSTest, xUnit, NUnit) as part of the System / Subsystem Design  
Training and extensive experience developing applications and services for remote clients with limited contact  
Strong algorithm design skills via Object Oriented Programming (OOP), SOLID, and Software Development Life Cycle (SDLC)  
Experience with cross-platform transmitting, converting, and processing real-time data from various sources  
Many years of experience with GIS databases and geospatial mapping application development  
Roles included Software Engineer, Web Master, Software Analyst, User Consultant, and Technical Support.

#### Skills Summary:

**Databases:** Microsoft SQL, MySQL, SQLite, PostgreSQL, and Access  
**OS:** Microsoft Windows, Microsoft Windows Server, and Linux (Ubuntu, Alpine, OpenJDK, CentOS, RedHat / RHEL, Fedora and Android)  
**Programming:** C# (Framework, Standard & Core), VB.Net, Java, Python, SQL, T-SQL, HTML, CSS, JavaScript, Typescript, JSON, and XML  
**Servers:** Docker, Node.js, IIS, Kestrel, Nano, Apache, Elasticsearch (ELK), Kafka, Redis  
**Frameworks:** ASP.Net (Core), Spring, Razor, MVC, ReactJS, WF (Windows Workflow Foundation), WCF, WinForms, WPF  
**Protocols:** REST API, SOAP, .Net Remoting, gRPC, WAMP-protocol, OAuth2, SAML, RS232, TCP, UDP, HTTP, HTTP2

**Omnigo**, 10430 Baur Blvd St. Louis, MO 63132

#### Senior Software Engineer : August 26, 2020 to Present

Internet services development and maintenance in C# ASP.Net Core and Entity Framework including scaffolding. Experience with Redis using StackExchange Redis .Net client and AWS Cloud storage upload.

**Department of Navy**, 575 L Ave Ste 1, Point Mugu, CA 93042

#### Computer Scientist, DP-4 : January 22, 2019 to November 22, 2019

Filling various roles with the Naval Air Warfare Center Weapons Division (NAWC-WD) for developing, maintaining and converting code to .Net and micro-services for future improvements that will assist those who serve our country.

- **E2-C/D.** Helping to maintain JMPS software add-ins, eventually converting to .NET and the future goal of moving to micro-services.
- **SPEAR.** Supported with DotNet Core experience, micro-services development and worked toward utilizing Kafka as a repository and eventual replacement for a large dynamic database. Tasks included fully understanding micro-services architecture, documenting important design patterns & standards, orchestration, messaging, logging, monitoring, utilization of Docker in both Linux and Windows environments, and planning for testing via unit-testing, integration testing, and end-to-end testing.

**Smartronix, Inc.**, 770-828 Paseo Camarillo, Camarillo, CA 93010 ph. (805) 482-6020

#### Software Engineer II : August 15, 2015 to January 21, 2019

Supported ETIRMS with the Naval Air Warfare Center Weapons Division (NAWC-WD), Point Mugu, CA. Performed software engineering for supporting various Navy aircraft, weapons systems, and other existing or newly developed applications and tools. Tasks included designing and integrating new external interfaces (supporting multiple clients, vendors and platforms), VB6 conversion to C#, code analysis, requirements analysis, unit testing, debugging, use cases creation, and regular expressions. Utilized C#, Java, VB6, C/C++, WinForms, WPF, IDL, COM, XML, SQL, MSTest, Microsoft Word, Access, Excel, PowerPoint, and Visual Studio 2005- 2017, Unity3D HoloLens, SharePoint, Rational Rose, ClearCase, and Great Migrations.

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**AeroVironment Inc.**, 900 Innovators Way, Simi Valley, CA 93065 ph. (805) 581-2187

**Software Engineer II : February 1, 2011 to September 30, 2013**

Performed software design, programming, and maintenance in C#, VB.Net, C, and C++ for various existing and newly developed applications. Handled maintenance and implementation of FalconView Map Application plugins used for communicating with simulators and actual Small Unmanned Air Vehicles (SUAVs) using serial, UDP, and TCP protocols both open and proprietary. Developed object-oriented flight simulators in C# and Unity3D. Created various software libraries (DTED, UDP packet communications, and debugging/testing tools) and helped develop a unique, simple to use, GIS desktop application supporting dozens of map types and geo-referenced entities. Implemented programming libraries based off ICDs, RFCs, and white papers. This job also included working with embedded Linux and Windows operating systems.

**Johnson Service Group Inc.**, 23901 Calabasas Rd Suite 2068, Calabasas, CA 91302 ph. (818) 815-1810

**Windows Developer, Contractor : June 10, 2010 to January 31, 2011**

Contracted to work for AeroVironment, Inc., in Simi Valley, CA as a Windows Developer and GIS Specialist. Performed maintenance of legacy FalconView plugins used for communicating with simulators and actual SUAVs using serial, UDP, and TCP protocols both open and proprietary.

**General Networks Corporation (GNC)**, 3524 Ocean View Blvd, Glendale, CA 91208 ph. (818) 249-1962

**Application Consultant : February 6, 2008 to April 30, 2009**

Filled roles in various project development and management positions with emphasis on software engineering using C# and VB.Net for primarily developing software for WSS and Microsoft SharePoint Server 2007. Filled IT technical support roles for various contracting companies.

- **(Lead Software Engineer, Dependable Logistics Solutions, Los Angeles, CA).** Developed a custom Microsoft SharePoint solution to add and selectively update the metadata of potentially millions of customer transaction records with minimal impact on system performance while providing fault-tolerance, error recovery/reporting and process recovery in the event of server failure. Added instant messaging capabilities to Microsoft SharePoint allowing staff to receive IM notifications of client interactions permitting faster response times and better record keeping. Implemented a multi-threaded Windows service that processed thousands of e-mails with minimal latency before passing the modified results to a Microsoft SharePoint e-mail management system.
- **(Software Engineer, The Pacific Bridge Companies, Monrovia, CA).** Developed a solution to map data from one specially designed PDF document to another different PDF document. The final intention was to populate Microsoft SharePoint forms with data from given PDFs and to also use data stored in Microsoft SharePoint to dynamically generate other PDFs.
- **(Software Engineer, Warner Brothers Studios, Burbank, CA).** Provided Hummingbird / OpenText eDocs support and maintenance using VB.Net.
- **(Software Engineer, Walt Disney Studios, Burbank, CA).** Provided basic Microsoft SharePoint development to demonstrate Microsoft SharePoint features.

**Self-Employed Contractor, Pasadena, CA**

**Computer Programmer / Web Developer : June 1, 2007 to January 1, 2008**

Implemented various Web controls for ASP.Net and developed plug-ins for WordPress, running on a Linux platform, using PHP and MySQL per client specifications and a Java-based multi-file upload control.

**Applied Science Associates Inc. (ASA)**, 70 Dean Knauss Dr, Narragansett, RI 02882 ph. (401) 789-6224

**Computer Programmer : February 1, 2002 to May 1, 2007**

Developed and maintained numerous GIS applications and tools, including desktop, thin client, and Web services while also helping to maintain the office's computers and networks. Provided innovative cutting-edge tools and utilities for ESRI ArcGIS 8.2 – 9.2 that easily added local- and Web-based data sources not previously available. Created true animation and time-line extensions that permitted animating any GIS layer with a date and/or time metadata field(s) present and provided methods to create, edit and display geo-mapped data like vector, scalar, geographic shapes, NetCDF, OpenDAP, GRIB and HDF. Also supported custom WMS layers and a simplified WFS layers. Helped implement the addition of near real-time SOAP messages from another client that would update custom layers on the ArcMap application with search and rescue data.

Created interactive Web-based visualization tools and services and utilized HTML, JavaScript, AJAX, C#, Flash 7+, and Flex 2. Aggregated, served, and displayed data such as NetCDF, WMS, WFS, WCS, ArcIMS, Yahoo Maps, Google Maps, Microsoft Live, and other formats. Implemented C/C++ and C# COM objects for accessing other APIs from Visual Basic 6. Developed code for 3D visualization of underwater terrain, GIS objects, scalar data, wind and water vector fields, plumes, and particle systems using GDI, DirectX, and OpenGL. Implemented programming libraries based off RFCs and white papers.