Name:	Matthew Hanna	Labor Category:	Software Engineer
Address:	8901 Valley Forge Drive, Alexandria, VA 22309	Phone:	626-344-9463
Email:	contact@matthewhanna.net	Website:	**https://matthewhanna.net**
Education:	Clemson University, M.S., Computer Science, May 2001.		
	Coastal Carolina University, B.S., Computer Science with Mathematics Minor, December 1998		
Objective:	A challenging but quiet software engineering role involving creativity and learning.		

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 in Object Oriented Programming (OOP), SOLID, and Software Development Life Cycle (SDLC)
Experience with cross-platform transmitting, converting, and processing of real-time data from various sources
Roles included Software Engineer, Full Stack Developer, Software Analyst, User Consultant, and Technical Support

Skills Summary:

Databases: Microsoft SQL, SQLite, MySQL, PostgreSQL, Access and Redis
OS: Microsoft Windows, Linux (Ubuntu, RedHat / RHEL, CentOS, Fedora), Microsoft Server and Android
Programming Languages: C# (Framework, Standard & Core), HTML, CSS, JavaScript, SQL, XML, JSON, Typescript, Python, Java
Servers: IIS, IIS Express, Docker, Node.js, Apache, Custom
Frameworks: MVC, ASP.Net (Core), Razor, React, WinForms, WPF, WF (Windows Workflow Foundation), WCF
Protocols: HTTP, HTTP2, REST API, OAuth2, SAML, TCP, UDP, .Net Remoting, gRPC, RS232, WAMP-proto

Training / Certifications:

Microsoft Power Apps, ASP.Net Core, ASP.Net MVC, Migrating to Micro-services, UML Essentials, Web Applications, React, Presenting Presentations, Problem Decomposition

Cherokee Federal, *2 W. 2nd St., Suite 1500, Tulsa, OK 74103*
Programmer Analyst II : March 6, 2023 to present
- **USGS**. WARC contractor for legacy internet services conversion to modern services and maintenance in Microsoft Power Apps, C#, ASP.Net Core, Entity Framework Core including scaffolding, SQL, HTML, JavaScript, CSS / SCSS, and Gulp. Limited usage of third-party libraries was stated as a requirement so many custom variations were created. Plenty of team work on projects.

TrustedQA, *11800 Michael Faraday Dr, Reston, VA 20190*
Senior Software Engineer : July 26, 2021 to June 23, 2022
- **Spalding AIBI**. NavAir contractor for software maintenance and improvement. Worked with Microsoft C# .NET Framework and Core, SQL, HTML, CSS, SCSS, JavaScript, XML, JSON, React, Node.js, Gulp, Docker, Jenkins, OpenShift. Lots of team work on projects.

Omnigo, *10430 Baur Blvd St. Louis, MO 63132*
Senior Software Engineer : August 26, 2020 to July 21, 2021
Internet services development and maintenance in C#, ASP.Net Core, Razor, Entity Framework including scaffolding, SQL, HTML, JavaScript, CSS, and Gulp. Experience with Redis using StackExchange Redis .Net client and AWS Cloud storage upload. Client API integration with TraQ6 and TraQ7 for import and export. Team was a pleasure.

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.
- **SPEARR**. 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*

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 with Agile 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 case 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.

AeroVironment Inc., *900 Innovators Way, Simi Valley, CA 93065*

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

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Web-based data sources not previously available. Created true animation and timeline 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 amplified WFS layers. Helped implement the addition of 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.