RICHARD F. AMARAL

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SUMMARY OF QUALIFICATIONS

Innovative, Entrepreneurial Software Professional, able to Lead a Team or contribute Individually, Focused on Delivering Pragmatic Solutions on Time and on Budget

Seasoned Software Engineer and Project Leader. Strong Verbal and Written communication skills that enable Clear and Concise interactions with all stakeholders. Exceptional Team Collaboration skills, with keen attention to Detail and a strong ability to deliver High-Quality work in any environment.

Software: MS Visual Studio, Git (GitLab), Subversion, Codebeamer (ALM), Atlassian (JIRA, Bitbucket, Bamboo, Confluence), MS Visio, MS Project, Code Composer Studio, GNU Tool Chain, MPLab IDE, CodeSonar, FxCop, WireShark

Computer OS: Windows, Linux (Debain, Ubuntu)

Hardware: PC architecture, Embedded systems (Atmel, Microchip), Emulators and Test Instrumentation

Languages: C#, C\C++, Java, HTML, JavaScript, CSS

Standards: DO-178C, DO-330

PROFESSIONAL EXPERIENCE

EaglePicher Technologies, East Greenwich, RI   10/2022 – 9/2024
Principal Software Development Engineer
- Created company's first BMS Analyzer Application with a Custom designed Scripting Feature
- Created Software Architecture, Project Schedules, Iteration Planning and Progress Reports
- Promoted the Analyzer application through Live Demonstrations to the Customer
- Wrote Hardware Interface Libraries to Prompt companywide Software Reuse
- Established company's C# Coding Standard
- Contributed directly towards the company's DO-178C and CMMI Certification
- Mentored and Guided younger Engineers, aiding in their Professional Growth
- Followed: Iterative Waterfall Development Methodology using Codebeamer ALM
- *Environment:* C#, WPF, MS Visual Studio, Codebeamer, DevExpress, GitLab

Waters Corporation, Milford, MA   03/2020 – 10/2022
Senior Software Engineer
- Contributed directly to Waters' Best selling Chromatography software, Empower
- Investigated and Solved difficult Multithreading Problems
- Facilitated Communication within the Team to increase Collaboration
- Worked with multiple networked VMs to Replicate and Solve Intermittent issues
- Documented Procedures and Solutions to Disseminate product Knowledge
- Followed Agile: Scrum Development Methodology using JIRA
- *Environment:* C\C++, MS Visual Studio, Atlassian Tool Set, Git

Schneider Electric, Foxboro, MA   06/2013 – 03/2020
Senior Software Engineer
- Developed a Complete UI Test Automation Application for the Test Group
- Designed and Developed HMI components for the Control Software product line
- Developed various Support Tool Libraries for the ArchestrA product
- Followed: Agile Scrum Development Methodology
- *Environment:* C#, MS Visual Studio, TFS, Code Collaborator

Bay Computer Associates, Inc., Cranston, RI   02/2011 – 06/2013
Software Technical Lead
- Self-Managed Entire Projects from Beginning to End
- Created Proposals, Budgets, Software Architecture, Code Development, Testing and Customer Support
- *Projects included*: CPR Coaching Device, Glucose Monitoring Device, Morphine Implanted Device and numerous smaller projects
- Followed FDA Medical Device Regulatory Procedures and Documentation Standards
- Received accolades and recognition for significant contributions to the company
- *Environment:* C#, MS Visual Studio, Subversion, Code Collaborator

Eaton - Wright Line, Worcester, MA   10/2010 – 02/2011
Principal Software Engineer (Consultant via AES Software Consulting)
- Lead, Designed and Developed a C# application to control Air Flow Management Devices and provide a Flexible Intuitive User Interface for Data Centers
- Gathered Requirements and wrote Proposals with Technical Specifications, Time Schedules and Budgetary Estimates
- Interacted closely with the Customer to specialize the product's Features and Performance making it Distinct and Unique in its field
- *Environment:* C#, MS Visual Studio, TCP Networking, Infragistics, SNMPSource, Sqlite

Turbine Inc., Needham, MA   10/2008 – 10/2010
Senior Software Engineer
- Contributed towards the company's "forward facing" applications including: TDM (Turbine Download Manager), the Launcher and the Billing Application
- Developed a Web Application to Monitor Installation Statistics
- Actively participated in Scrum Development Methodology using VersionOne to organize and Track Progress
- Worked closely with SQA and Marketing to Resolve Issues and Incorporated Timely Promotions, Business Rules and periodic Updates to the Billing Application
- Fixed bugs and implemented Features in the game Launcher Application
- *Environment:* Windows, Linux, Networking (.NET, PHP, MySQl database GNU tools, MS Visual Studio, Perforce, Test Track Pro)

DCI Engineering Services Inc., Worcester, MA   10/2004 – 10/2008
Software Manager (Consultant via AES Software Consulting)
- Software Manager and Principal Engineer, responsible for all aspects of the company's software capabilities
- Interfaced Directly with Customers and Reported to Upper Management
- Managed all Aspects of software Projects including, Proposal Writing, Resource Procurement, Design, Implementation, Bug Tracking and Post Release Support
- Worked on projects for the Food, Medical, Packaging and Energy Industry Sectors
- Instituted Work Flow Processes, Software Quality Metrics, Task Tracking Systems and Design Reviews
- *Environment:* Windows, Linux and embedded tools (.NET, MySQL, XP embedded, GNU tools, SourceSafe, CVS and Mantis)

AES Software Consulting, Harrisville, RI   10/2000 – 10/2008
Principal and Owner

- **ASI Inc.,** Wrote and integrated software into an existing control platform to support new tooling for capital equipment. Established a source control and bug reporting system. Provided Software Configuration Management services. *Environment*: C++, Visual Studio, SourceSafe, Mantis.
- **Lite Enterprises Inc**., Managed all aspects of the software development portion of an inspection machine including, design, implementation, test, scheduling and budgeting. *Environment:* C++, Visual Studio, Galil motion, SourceSafe
- **Huestis Medical Inc**., Ported existing software for a Tissue Compensator Mold Cutter equipment from DOS to Windows. Provided an enhanced UI and conversion to Galil motion controllers. Created a new application to test an X-Ray Collimator device. The software allowed testing of multiple collimators, saving the company many hours of test time and providing a detailed test report. *Environment*: C++, Visual Studio, SourceSafe.
- **AVH Inc.,** Architected a new software platform for a component testing machine. Responsible for software development, testing, scheduling and budget. *Environment*: C++, Visual Studio, SourceSafe.
- **Speedline Technologies Inc**., Ported the company's best-selling software control platform from DOS to Windows NT including the replacement of the entire vision system resulting in substantial cost savings. Lead a team of five local and remote developers. *Environment*: C++, Visual Studio, SourceSafe, PVCS Tracker.
- **Teradyne Inc.,** Member of the MIT vision inspection team, developed software to measure vision algorithm performance and provided training on object oriented design and implementation. *Environment:* C++, Visual Studio, SourceSafe.
- **AVH, Inc**., Created a client server parts ordering web application including user interface and database back end. *Environment*: C++, HTML, JavaScript, MacroMedia Fireworks.
- **LightChip, Inc.,** Developed a LabView based application to interface with a telecommunication device. *Environment:* Windows NT, C, LabView.

EDUCATION & US PATENT

Worcester Polytechnic Institute, Worcester, MA
Project Management Planning, Scheduling and Control, CE course
Continuing Ed classes including: C++ Programming, Windows NT Administration,
Finance and Accounting for the Non-Financial Professional, The WPI Leadership Workshop

Worcester Polytechnic Institute, Worcester, MA
Graduate courses: Computer Architecture, Digital Signal Processing

University of Hartford, West Hartford,   CT
B.S.E.E.T

Patent: United States Patent #5,882,720 Monitoring Deposited Pads

Schneider Electric - Automation Test Framework

I designed and implemented a complete software framework to automate the testing of the company's system configuration platform - ArchestrA.

- Using my software, a user is able to mimic the actions of a human tester including pressing buttons, entering and reading text and numbers, menu selection and recognizing graphic icons.

- The framework allowed a user to specify each step in a test procedure using a scripting language. The script is checked for proper syntax and then executed. A report is generated at the end of the test run specifying which tests passed and which failed.

- The framework provides a comprehensive listing of each test step when executing a test script, including any problems encountered along the way. This information is presented to the user as a colored code list, making it easy to read and troubleshoot.

- This test framework saved countless hours of human testing. The platform is especially helpful during software regression testing, when existing functionality is verified to ensure new changes have not caused problems.

Bay Computer Associates

Bay Computer Associates provides software/firmware and electronics contracting services for a number of industries including: Medical, Industrial, Manufacturing and consumer products.

- I performed all project management and coding duties including: Proposal writing, budget allocation, requirements gathering, software design, software implementation, testing, documentation, customer interaction and post software release support. *Additional projects worked on include*: Glucose Monitoring Device, Pain Management Implanted Device and a CPR Coach Handheld device.

AES Software Consulting – for Moobella - Fresh ice cream dispensing machine.

- Managed resources for software development, leading the software design and implementation effort, acting as liaison between Columbia and Moobella to facilitate communication, requirements and changes during the project.

- Coordinated the efforts of an outside contracting group hired to write the software. After assessing their work and capabilities, I replaced them with my own team and re-wrote the software from the ground up to ensure the quality and capabilities required by Moobella.

- The re-written software exceeded both parties' expectations in appearance, usability, and function. During this time, I encountered numerous challenges with the electrical hardware and had to solve each to continue making progress.