

Pete Arvanitis

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SUMMARY

Full Stack Software Engineer with over twenty years of application, mobile, and embedded development experience across multiple vertical markets (Energy, Finance, Healthcare, Hospitality, Transportation, Government, Real Estate).

SKILLS & EXPERTISE

- Application Server Development (Java, JavaScript, C#, python)
- Front End Development (JavaScript, Web Components, React, Polymer, GWT)
- Mobile Application Development (native Android (Java), native iOS (Swift), Cross Platform (Cordova, React-Native)
- Embedded/Firmware Development (C/C++, Microchip PIC, Atmel, FreeScale)
- Desktop Application Development (C+/C#/Java)
- Software Architecture and Documentation (4+1)
- Requirements Development and Management
- Software Engineering Process (Agile, Waterfall)
- Database Design and Documentation (MySQL, Microsoft SQL Server, Oracle, DynamoDB)
- User Experience (UX) Design
- Cloud Architecture and Analysis (AWS, Digital Ocean)
- Team Building and Management/ Process Design and implementation

EXPERIENCE

Heatworks | Mount Pleasant, SC 2018 – Present

Provided software development and consulting for the Model 3 Tankless Electric Water Heater.

- Firmware development using C (XC32) for the Microchip PIC32 including Harmony integration, AWS integration, OTA bootloader implementation, and various services.
- Development of AWS server services including MQTT (IoT Core) integration, Lambda function development (JavaScript) and SQS integration

Lowcountry Marine Mammal Network | North Charleston, SC 2019 – Present

Developed mobile and cloud applications to allow citizen scientists to provide dolphin sighting information to the non-profit.

- Developed native mobile applications for Android (Java) and iOS (Swift)
- Development of AWS Services including Cognito User Management, Lambda functions/REST API, S3, and DynamoDB to record and store sighting information,

TSO3 | Myrtle Beach, SC 2017 – Present

Provided embedded software development for an IoT add-on to the TSO3 Sterizone VP4 Sterilizer.

- C++ development of a parametric comparison and reporting system. System was developed to cross-compile to the Atmel ARM Cortex-A8 processor.
- Responsible for writing the Software Requirements Specification, 4+1 Software Architecture Documentation, Interface Specification and Test Plans required for regulatory approval.
- Technical liaison and integrator to Getinge's T-DOC and cloud framework.

Transitional Work Solutions | Suwanee, GA 2016 – Present

Provided software consulting and development for their cloud-based workman's comp and non-profit placement system.

- Developed the back-office cloud application server and customer portal utilizing JavaScript/Web Components for the front end and Spring (Java) on the REST application server
- Migrated hosting solution to AWS utilizing EC2, Elastic Beanstalk, Cloudfront, and Aurora RDS
- Provided security analysis, penetration testing, and applied fixes to conform with customer and 3rd party security requirements.

Provided required gathering and analysis and software architecture documentation and recommendations for large corporate clients including a multi-national confectionary company and music industry Performance Rights Organizations

- Performed Requirements and Use-Case analysis by Interfacing with multiple focus groups within the companies.
- Implementation of proof of concepts and prototypes hosted on AWS utilizing JavaScript on the front end and Spring (Java) for the REST application servers.

Acted as a technical advisor and software consultant for the development of a cloud application to manage the workflow of real-estate closings.

- Performed requirements gathering and UX analysis through interviews with several dozen focus groups of real-estate agents and coordinators.
- Designed and implemented the cloud application utilizing JavaScript (web components) on the front end and Spring (Java) for the REST application server. Set up and maintained AWS cloud hosting (EC2/Elastic Beanstalk/Aurora RDS)
- Developed mobile applications for Android and iOS utilizing JavaScript and Cordova
- Developed the algorithm and worked with legal team on patent documentation for showing scheduling system

Acted as a technical advisor and software consultant for the development of multiple lighting control products.

- Developed firmware for the Microchip PIC8, PIC16, PIC24, and PIC32 chipsets on a variety of control products.
- Developed Arduino based firmware for a large scale XBEE mesh lighting control system
- Developed the cloud platform to automate the sales and provisioning process for lighting controls. The front end was developed using JavaScript (GWT and Polymer) and the REST application server was developed using Spring (Java)
- Developed Android and iOS mobile applications to program lighting controls using JavaScript/Cordova.
- Interfaced with the in-house and 3rd party EE teams to provide circuit review and component recommendations

Acted as a technical advisor and software consultant for the development of a cloud server to allow musicians to register works with the SESAC Performance Rights Organization (PRO).

- Developed the cloud application portion of the product using JavaScript/GWT for the front end and Spring (JAVA) for the REST application server.
- Deigned and implemented the audio file sharing and streaming capabilities of the system utilizing Amazon S3 and the HLS streaming protocol.
- Served as a technical liaison for requirements gathering and auditing and wireframe design and review.

Acted as a technical advisor and software consultant for the development of multiple energy monitoring products and the cloud platform used by clients to access energy data..

- Developed firmware for the Microchip PIC8/16/24/32 chipsets on energy monitoring and wireless display products.
- Designed and developed the client facing cloud platform utilizing GWT and JavaScript on the front end and Spring (Java) on the REST application server. Integrated with AWS (EC2/Aurora RDS) for hosting and hosting.
- Developed mobile applications for Android and iOS utilizing JavaScript and Cordova.
- Developed Alexa skills to interact with the cloud platform utilizing AWS Lambda and JavaScript.
- Interfaced with the in-house and 3rd party EE teams to provide circuit review and component recommendations.
- Served as the technical liaison to 3rd party cloud teams including Microsoft Hohm and Google PowerMeter. Developed the interface specification and wrote firmware code to post data to these systems
- Worked with e CM to develop the C# application used by the factory to test and calibrate hardware

Acted as a technical advisor and software consultant for the integration and development for custom building automation products.

- Developed custom solutions to interface a variety of products with automation and controls software and video recording suites. Examples include custom video drivers, serial communication interfaces, TCP socket communications, and custom reporting. Solutions were primarily written in C++ and C#.
- Developed in-house workorder generation and tracking system that interfaced with local accounting systems and customer systems to provide real-time workorder status. Server application was developed using Java for the REST application server and JavaScript for the front end.
- Acted as the sales engineer for multiple large bids including airports, ports, banks, and hospitals
- Designed and developed firmware for custom automation products using C for the Microchip PIC24/PIC32 processors.
- Provided analysis, feedback, and review of circuit designs from 3rd party EE companies for custom automation products.
- Worked with the CM to develop production process and wrote applications (C#) for factory testing and calibration.

ICF/DoD EMALL | North Charleston, SC

2002-2006

Acted as a lead architect and technical specialist for the DoD EMALL platform designed to streamline the procurement of government purchases from suppliers.

- Performed requirements analysis and 4+1 software architecture documentation for platform.
- Designed and implemented the software process to achieve Level 3 CMM certification for the company
- Implemented the J2EE based server application and integrated with 3rd party catalog and purchase order processing companies

netSCOPE | Mount Pleasant, SC

1998 – 2009

Acted as a technical advisor and software consultant for the development for custom webcasting solutions

- Designed and developed a scalable application server (C++) used to stream images and video to a large audience for corporate clients (NASCAR, PGA)
- Designed and developed a C++ desktop application for capturing multiple image and video feeds from Integral video cards.
- Designed and developed a mobile application (C++ for Windows CE) to allow still images to be streamed over 3G.
- Designed and built the ChefCam – a first person webcam worn by Chef Ciaran Duffy of Tristan restaurant. Featured in Gourmet Magazine and named one of the "Top 50 Innovative Ideas" by Restaurant Business Magazine
- Designed and built a long-range video system for the SEAFOX, and unmanned navel drone developed for the Office of Naval Research (ONR).

BenefitFocus | Mount Pleasant, SC

2001 – 2002

Served as a senior developer and architect for the J2EE insurance enrolment application and EDI interfaces with insurance companies.

Clientic | Mount Pleasant, SC

2000 – 2001

Served as a senior developer and architect for a J2EE medical referral system

Orient Express Hotels | Charleston, SC

1997 – 2000

Served as the Director of Internet Technology for all North American hotels and restaurants.

- Wrote custom C++ applications to interface the multi-property reservation system with 3rd party reservation sites, accounting systems, phone systems, and point of sale systems.
- Responsible for interfacing and managing 3rd party vendors providing phone and internet services to all North American properties. Established internet services as a revenue stream for North American properties.
- Worked with North American and European marketing companies on the development and rollout of property websites.

Ichor, LLC | Charleston, SC

1997 – 1999

Served as the technical lead for the C++ Windows CE based application that stored medical records on the Texas Instruments iButton.

Sun Microsystems | Cupertino, CA

1996 – 1997

Served as a contracted software developer to help design and implement the 1.x versions of the Java Development Kit and Java Electronic Commerce Framework.

EDUCATION

College of Charleston | Charleston, SC

1996

Bachelor of Science, Computer Science

Honors & Activities: Dean's List / Cum Laude / ACM Officer