

# Pete Arvanitis

## Software Developer

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### Freelancing Highlights (petecode.com)

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#### **2007-present**

#### **Energy, Inc. Charleston, SC (Energy Monitoring Device Manufacturer) Contracted Software Developer**

Acting as a technical advisor and software consultant to a very successful and pioneering energy monitoring company, Mr. Arvanitis was responsible for the software design and development of their core products including:

- Development of embedded code written in C for the TEDPRO and TED5000 products targeting the microchip family of processors (PIC18, PIC24, PIC32) and web-based front ends utilizing the Google Web Toolkit and Javascript. This included TCP and USB stack integration and debugging as well as interfacing with energy sensing chips and developing algorithms to interpret A/D line readings.
- Developed of embedded code for posting energy data to 3rd party cloud-based systems including Google PowerMeter, Microsoft Hohm, Eragy, PlotWatt, and others. Worked as a liason to these 3<sup>rd</sup> party teams to provide integration and code support.
- Implemented custom IEEE 802.15.4 based protocol for wireless communication.
- Implementation of custom code to interface products with ZigBee Pro/SE devices and Power Line Communication(PLC) devices.
- Worked with CM and developed a C# application used by production factory to test and calibrate hardware.

#### **2011-present**

#### **Ripley Lighting Controls, Columbia South Carolina Contracted Software Developer**

Acting as a technical advisor and software consultant to a lighting controls OEM, Mr. Arvanitis was responsible for the software design and development of several of their products including:

- PhotoClock II Programmer Mr. Arvanitis designed and developed the embedded software for a USB-based embedded device used to program schedules on the PhotoClock II product. The embedded software was targeted for a Microchip PIC18 and included implementation of a USB-based bootloader. In addition, a JavaFX based application was designed to provide a graphical interface to the programmer
- Aladdin Lite/Jr, Mr. Arvanitis designed and developed the embedded software for a wireless mesh lighting control system utilizing XBEE radio modules. The system created a mesh network of up to 500 lamps that could be controlled via schedule, external sensor input, and manual operation. The embedded software was developed using a combination of C and Java. The target architecture for the embedded system is

based on the following microcontrollers: PIC16, PIC18, PIC32, and the Freescale processor.

## **2004-2012**

### **i-Sys Corporation, Charleston SC (Building Automation Integrator) Contracted Software Developer**

- Served as the director of Software Development and IT and acted as a software development liaison to i-Sys's larger customers including national banks, airports, and school systems.
- Hired and managed permanent IT and development staff and implemented processes for staff issue tracking and scheduling.
- Anti-Skimmer Device, Mr. Arvanitis designed and developed the firmware for an embedded device used to detect tampering and skimming device installed on Automatic Teller Machines used by some of the largest bank chains in the US. The device's web interface front end was developed using the Google Web Toolkit. The embedded software was written in C for the Microchip PIC24 processor. In addition to software development, Mr. Arvanitis acted as liaison to the hardware design firm and CM to bring the Anti-Skimmer through its first production run.
- Development of custom web-based system to handle and automate the business process workflow including work-order generation, purchase request generation, billing, job-costing, payroll and account reporting. Integrated with the existing MAS90-accounting system to automate and reduce data entry. Application written as a GWT/J2EE Web application interfacing w/ an MS SQL Server database.
- Design and development of customer solutions to interface a variety of products with Schneider Electric's automation and controls software and Integral/Pelco video recording suite. Examples include custom video drivers, serial communication interfaces with wireless panic alarm systems, TCP socket communication with temperature monitoring hardware, and custom reporting. Solutions were primarily written in C++ and C#.
- Custom graphic design of website, marketing literature, and UI elements for 3rd party building automation software

## **2006-2009**

### **Resort Clubs International, Jacksonville, FL Website Design, Application Development, IT Support**

- [www.golfvalueclub.com](http://www.golfvalueclub.com) - Web Application development including membership registration & management, campaign management, and payment processor integration. Combination Java/Python Web application with a MySQL database
- Graphic design for company logos and websites including [www.yourtrophyclub.com](http://www.yourtrophyclub.com), [www.golfvalueclub.com](http://www.golfvalueclub.com), and [www.rtc.us](http://www.rtc.us)
- Server support and administration including web/email servers, domain management, and CMS management.
- Various video editing, graphic design and manipulation

## **1998-2009**

### **netScope, Inc. Charleston, SC (Commercial Webcasting) Webcam Application Development**

Designed and produced cutting edge web-casting solutions for sports and commercial special events. Webcasts include:

- NASCAR.COM Garage Cams
- PGA.COM Coverage of the PGA Championship
- ChefCam - 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
- Developed a custom long-range video system for the SEAFOX, an unmanned boat developed for the Office of Naval Research (ONR)

## **Employment Highlights**

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### **2002-2006, 2011-2014**

#### **ICF Consulting, Charleston, SC Senior Software Engineer/Technical Specialist**

Senior Software Engineer for a government contracting/consulting firm. Responsibilities include the architectural and implementation oversight on projects developed by the Charleston office. Also responsible for the implementation and enforcement of best practices including code reviews, unit testing, issue management, and quality assurance. Projects include:

- SESAC MINT: Mr. Arvanitis served as a technical specialist and senior developer of the web client portion of SESAC's online works registration and asset management platform. He was responsible for
  - The design and Implementation of a Google Web Toolkit/HTML5/JavaScript front end relying heavily on dynamic screen generation and rapid prototyping for customer acceptance.
  - Design and documentation of multiple REST services related to advanced search, set list management, audio file sharing, and user account settings.
  - Design and implementation of audio file sharing and streaming utilizing Amazon's S3 server and the HLS streaming protocol.
  - Liaison: Mr. Arvanitis was responsible for interfacing with SESAC weekly for web requirements gathering and auditing, traceability matrix management, and UI wireframe design and review
- Email (ODM/ETO/MOES): BEA Weblogic J2EE Application designed to streamline the procurement of non-stocked items through the use of basic ordering agreements (BOAs) with suppliers.

- CRISP: J2EE Web Services (BEA Weblogic Integrator) project used to manage XML repair item status messages between the US Air Force and commercial vendors.
- E2E: A WebMethods based EDI gateway linking multiple government suppliers and vendors. EDI formats include XCbl, EDI 843, and a variety of flat format files.
- Designed and Implemented processes and procedures used to achieve CMM Level 2 certification.

## **2001-2002**

**BenefitFocus.com, Charleston, SC**

**Senior Software Engineer**

Senior developer responsible for the design and implementation of several projects including:

- Designed and implemented the J2EE-based command engine and persistence layer used to drive the application's business logic.
- Refactored and implemented core Java libraries used as the foundation for the benefits-enrollment web application.
- Designed and implemented API and framework used to map application benefit transaction data to 3rd party EDI transactions.

## **2000-2001**

**Clinetic, Inc, Charleston, SC**

**Senior Software Engineer**

Mr. Arvanitis was the senior software developer responsible for the design and implementation of web-based medical referral systems. Responsibilities included design and development of core web application leveraging J2EE components on a Weblogic application server and Oracle 8i database.

## **1996-2000**

**Orient Express Hotels, Charleston, SC**

**Internet Technology Manager**

Originally starting as a consultant in 1996 and eventually being recruited full time in 1998, Mr. Arvanitis became responsible for managing the Internet technology efforts for all of OEX's North American and Caribbean hotels and restaurants. His responsibilities and achievements included:

- Integration and software development support of interfaces between existing accounting systems and multi-property hotel reservation systems utilizing C++ and Visual Basic.
- Integrated management of on-line reservations system.
- Procurement and management of Internet facilities at each location.
- Establishment of internet services for guests as a revenue stream for the chain
- Managed the design and implementation teams for promotional web sites.
- Management of internal back-office servers and IT support staff

**1997-1998**

**Ichor, LLC, Charleston, SC**

**Senior Developer**

Senior developer on the WristRecord a C++ based Windows CE application that used scripted questionnaires to create an electronic medical record. The EMR was then stored on a smart card-like device called an iButton.

**1995-1997**

**Home Account Network, Inc, Charleston, SC**

**Lead Developer, Contractor**

Became one of the first developers to use Java in developing a commercial application. Served as a key member on various projects including:

- Lead Java developer on HAN's web-based home-banking product.
- Sub-contracted to Sun Microsystems to assist in the design and implementation of the Java Electronic Commerce Framework..

## Publications

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"Testing, Testing, Easy as 1-2-3." WMUsers E-Zine, Feb. 2003. - An article on in integrating unit testing with WebMethod services.

A. P. Leclerc, T. Breslin, and P. Arvanitis. Parallel Interval Global Optimization Using the Message Passing Interface, South Carolina Supercomputer Network Workshop, University of South Carolina, August 23-24, 1996.

## Education

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Bachelor of Science, Computer Science. College of Charleston, Charleston, SC - May 1996

## Technical Skill Sets

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Programming Languages: Java (J2SE, J2EE, J2ME), C, C++, C#, SQL, Visual Basic, GWT, Android SDK, JavaScript, ActiveScript, ASP, PL/SQL, Python

API's, Frameworks, and Standards: Google Web Toolkit, Spring, Struts, Tiles, Velocity, Hibernate, XML (OAGIS, xCBL), UML

Databases and Application Servers: Oracle 8i/9i/10g/11g, Microsoft SQL Server, MySQL 4/5, MS Access, Weblogic Server 10g, Weblogic Integrator, WebMethods Integration Server, Apache HTTP, Apache Tomcat, Jetty, Microsoft Exchange, Active Directory Server, Flash Media Server 2, Windows Media Server, Amazon EC2, Google Apps

Platforms: Windows (XP, Windows 7/8, Server 2003,/2008/2012/Mobile/CE), Android, Embedded (Microchip PIC24/PIC32), Linux(Fedora, RHES, CentOS)

Configuration management: Git, SVN, CVS, Maven, Visual Source Safe, PVCS Tracker