BOB CRAVENS

bob.cravens@gmail.com

SUMMARY

Interested in working in an agile environment with a focus on innovation and shipping high value products.
Particularly interested in web and mobile technologies.
Proven senior-level Application Architect & Developer experienced in all phases of product development with over 15 years of experience.
Engineering enthusiast with a tremendous passion for learning existing and emerging technologies.
Hands on experience in enterprise, stand alone, client / server, software / hardware, and web applications.
Strong engineering, science and math background.
Able to work independently, as a team member or leader.

SPECIALTIES:

Web Development, HTML, CSS, JavaScript, jQuery, AJAX, ASP.NET MVC, PHP, C#, .NET Framework, C++, MFC, Win32
Medical Physics, Applied Physics & Mathematics, Electrical Engineering, High Frequency / Microwave Circuits, Solid State Engineering

SKILLS

C#	HTML	HTML 5
jQuery	AJAX	MFC
ASP.NET MVC	PHP	C++
JavaScript	Architecture	.NET
CSS	Web Development	Web Applications
Databases	Agile	Agile Methodologies
Lean Software Development	Scrum	Kanban
Electrical Engineering	Applied Physics	Medical Physics
Win32	Deployment	Software Engineering
C	Windows	XML
Testing	Requirements Analysis	SQL
Software Design	SQL Server	ASP.NET
MySQL	Algorithms	OOP
Visual Studio	Imaging	Image Processing
Medical Imaging	Object Oriented Design	Application Development
Backbone.js	Research	Research Management
Digital Imaging	Software Development	

EXPERIENCE

Accuray 2011 - Present

Research Software Engineer / Manager

Develop / research software applications that enable customers (internal / external) to operate more effectively and efficiently.
Products:
TomoTherapy Quality Assurance, or TQA, puts internally generated HiArt system data in the hands of your medical physics staff. This easy-to-use application automates the collection, and simplifies the analysis, of key metrics for machine QA. The result is a significantly more efficient, more informed approach to daily, monthly, annual and as-needed testing.
TomoLink allows remote diagnostics of the HiArt system. Each system publishes data to a central Customer Support location. This data provides valuable proactive trouble-shooting information.

Dig Labs
01 / 2012 - Present

Founder & Director

Founder and principal engineer of a consulting firm focused on providing high-quality engineering services and solutions.
Primarily an incubator of business and technology concepts.

Heartland Farm Sanctuary
01 / 2009 - Present

Board of Director / Technical Consultant

As a board member I provide advice on current operations, future vision and fund raising.
Provide technical consulting on IT infrastructure.
Designed, developed, maintain and host website.

TomoTherapy
2005 - 2011

Lead Applied Physicist

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TomoTherapy
2003 - 2005

Physicist

During this time, I contributed to the Quality Assurance of the HiArt machine. In particular three areas where I played the lead role:
MVCT Commissioning - I automated and streamlined the MVCT commissioning process. Originally, this required an on-site visit by a specialist. The new process allowed commissioning to be done as part of manufacturing.
Treatment Planning Commissioning - I automated and streamlined the treatment planning commissioning process. The original process was extremely manual, required a specialist (typically Medical Physics background) and took around 1 month. The new process allowed commissioning in about 2-3 days.
Treatment Planning Twinning - After automating the Treatment Planning Commissioning it was determined that we could dosimetrically ‘twin’ each machine during manufacturing. I led the development of the hardware / software / process that allows twinning.

EDUCATION

University of Wisconsin-Madison 1990 - 1994
PhD , Electrical Engineering, Minor Physics

University of Wisconsin-Madison 1988 - 1990
MSEE , Electrical Engineering

University of Wisconsin-Madison 1984 - 1988
BSEE , Electrical Engineering