

# Keith Huster

## ASP.NET Full-Stack Developer / Software Engineering Specialist

### // PROFILE

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A well-respected ASP.NET Full-Stack Developer / Software Engineering Specialist capable of taking ideas from concept to production. Keith has over 13 years of experience developing both pure software systems as well as embedded electro-mechanical systems for the education and medical device markets.

Keith currently holds 13 US patents for various medical devices and software systems.

Keith is also a volunteer firefighter who enjoys cycling, snow skiing, and camping.

### // CONTACT

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#### MOBILE

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#### EMAIL

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#### ADDRESS

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Sunman, IN 47041

### // SOCIAL

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#### LINKEDIN

linkedin.com/in/husterk

### // EXPERIENCE

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#### CURRICULUM LOFT

2014 - PRESENT

##### ASP.NET Full-Stack Developer (Full-Time Remote Position)

- Responsible for new product / feature development utilizing technologies such as ASP.NET MVC, ASP.NET Web API, Bootstrap, JQuery, KnockoutJS, Typescript, HTML5/JS/CSS3, SQL, MongoDB, StructureMap, etc...
- Responsible for field product support including triaging / correcting issues as they are reported by customers and / or the dedicated support team.
- Responsible for production deployments of the ASP.NET products to over 1000 schools via a Continuous Integration server (TeamCity).
- Responsible for technical documentation development.

#### HILL-ROM

2001 - 2014

##### Software Engineering Specialist (New Product Development)

- Worked with multiple disciplines to improve our engineering toolset including task tracking, source code management, and requirements management tools.
- Architected and developed a Microsoft .NET service capable of aggregating and normalizing data received from up to 1000 connected hospital beds.
- Designed, setup, configured, and managed a development network consisting of multiple physical and virtual servers, wired and wireless technologies, and multiple embedded medical devices.
- Developed a "Connectivity Sales Toolkit" to allow the sales force to demonstrate and discuss the concept of the "connected hospital bed".
- Developed application software (written in C#) for a Windows CE 5.0 embedded device used as a touch screen interface to control Hill-Rom hospital beds.
- Developed UL60601-1 / UL60950 compliant hardware and embedded software for an Ethernet gateway device.
- Designed and developed a system to connect a hospital bed to an Ethernet network thus allowing remote access to the data contained within the bed from anywhere on the network. Demonstrated this system to the Executive Management and Board of Directors early in my career.
- Completed the Concept Engineering process for a device that provides a wireless communication path between a standard hospital bed and the central nurse station.

#### CINCINNATI INC.

1998 - 2000

##### Laser Production Engineer (Intern)

- Established a web-based repository for engineering and assembly documents accessible by the entire laser engineering department.
- Standardized all laser engineering documents through the creation and enforcement of a document template.

## // SKILLS

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### MICROSOFT ASP.NET DEVELOPMENT

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- Strong C# development skills including experience with the various .NET frameworks (up to v4.5.1).
- Implementing Inversion of Control / Dependency Injection patterns via StructureMap.
- Implementing multi-threaded / highly concurrent applications via the async / await pattern.
- Developing ASP.NET MVC and ASP.NET Web API applications for production environments.
- Developing Single-Page Applications (SPAs) using a variety of technologies including Bootstrap, JQuery, KnockoutJS, AngularJS, HTML5 / Javascript / CSS3, Typescript, etc...).
- Implementing both traditional SQL and modern No-SQL (MongoDB) data storage technologies.
- Implementing Unit / Integration tests using mocking frameworks such as Moq and TypeMock.

### MICROSOFT .NET APPLICATION DEVELOPMENT

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- Strong C# development skills including experience with the various .NET frameworks (up to v4.5.1).
- Implementing WinForms graphical user interfaces and backing applications.
- Implementing Windows Services for integration into distributed architectures (service-oriented architectures).
- Implementing multi-threaded applications via the Concurrency & Coordination Runtime (CCR).
- Connecting .NET applications to embedded devices via TCP/IP and / or legacy serial protocols.

### EMBEDDED SYSTEMS DEVELOPMENT

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- Strong embedded hardware / firmware (Embedded C) design and development skills.
- Implementing bare-metal firmware for control of low-end microcontrollers.
- Implementing firmware within the context of a real-time operating system (RTOS).
- Connecting embedded devices to backend applications via TCP/IP and / or legacy serial protocols.

### MEDICAL DEVICE DEVELOPMENT

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- Developing production-quality medical devices following the FDA regulations.
- Documenting the product development process (requirements, design, and testing documentation).
- Providing field support for legacy devices.

### REQUIREMENTS DEVELOPMENT

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- Strong knowledge in requirements development under both waterfall and Agile development strategies.
- Experience with FDA / UL regulated design controls, hybrid requirements models, etc...

### SERVER / NETWORK MANAGEMENT

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- Deploying both physical and virtual servers within a virtualized environment (VMware ESXi).
- Installing and configuring hypervisors (VMware ESXi) and the associated clients (vSphere).
- Deploying layer-2 networking devices including switches (Cisco) and software routers (pfSense).
- Deploying enterprise-grade Wi-Fi networks using Cisco WLAN controllers and lightweight access points.
- Implementing VLAN segmenting for subnet isolation.

### GENERAL SKILLS

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- Strong PC usage and management skills (network configuration, virus removal, etc...).
- Strong Microsoft Office skills (Word, Excel, Powerpoint).
- Quick to learn new technologies / techniques and apply them to the task at hand.

## // EDUCATION

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### M.S. SOFTWARE ENGINEERING

2007 - 2010

Drexel University  
Philadelphia, PA  
GPA: 3.77 (4.0 Scale)

### B.S. ELECTRICAL ENGINEERING

1998 - 2002

Rose-Hulman Institute  
of Technology  
GPA: 3.19 (4.0 Scale)

### FIREFIGHTER I / II

2003 - 2004

Sunman Rural Fire  
Department

## // ACCOMPLISHMENTS

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### PROFESSIONAL

- Inventor of 13 US patents for Hill-Rom (more in process).
- Awarded Hill-Rom's "Patent of the Year" twice (runner up once).
- Awarded Hill-Rom's "President's Innovation Award".
- UL60601-1 Certification training from UL University.
- Founded *VFD Software Solutions* small business.
- Webmaster for *The Hooker Deer Drag Co., LLC*.
- IT Admin / Webmaster for the *Sunman Rural Fire Department*.
- Started home-based consulting engineering company.



### ACADEMIC

- M.S. Software Engineering (Drexel University).
- B.S. Electrical Engineering (Rose-Hulman Institute of Technology).
- Completed Fundamentals of Engineering (FE) exam.
- Awarded senior project funding by the National Collegiate Inventors and Innovators Alliance and the Lemelson Foundation.



### PERSONAL

- Started distance cycling and Crossfit to improve overall health.
- Volunteer firefighter since 2004 (firefighter of the year in 2007).
- Promoted to Lieutenant Firefighter in 2014.

## // AFFILIATIONS

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### SUNMAN RURAL FIRE DEPT. Firefighter I / II

Volunteer firefighter with HazMat Awareness and CPR / First Aid certifications.

### LAMBDA CHI ALPHA Brother (Rose-Hulman)

Active member of the fraternity and participated in numerous philanthropic activities.

### UPSILON PI EPSILON Member

Honor society for the computing and information sciences disciplines at Drexel University.

## // REFERENCES

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### MIKE HILLIGOSS

Dir. Software Development,  
Curriculum Loft

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E [Available Upon Request]

### Business Address

429 N. Pennsylvania St.  
Indianapolis, IN 46204

### DAN TALLENT

Core Team Leader, Hill-Rom

M [Available Upon Request]  
E [Available Upon Request]

### Business Address

1069 State Route 46 E  
Batesville, IN 47006

### STEPHEN FLINT

VP of R&D, Medela, Inc.

M [Available Upon Request]  
E [Available Upon Request]

### Business Address

1101 Corporate Drive  
McHenry, IL 60050