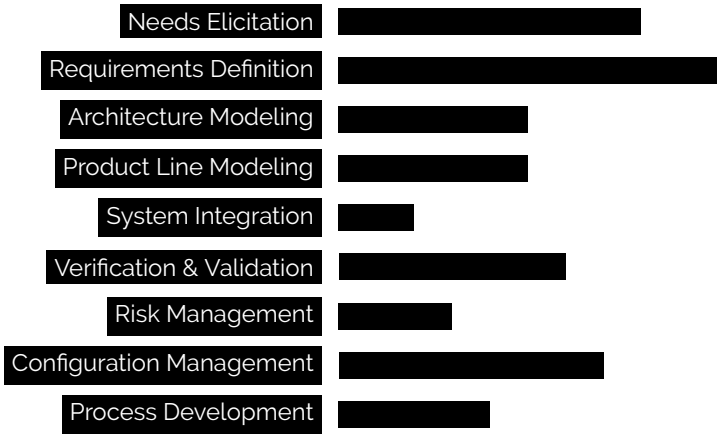
MATTHEW JOHNSON

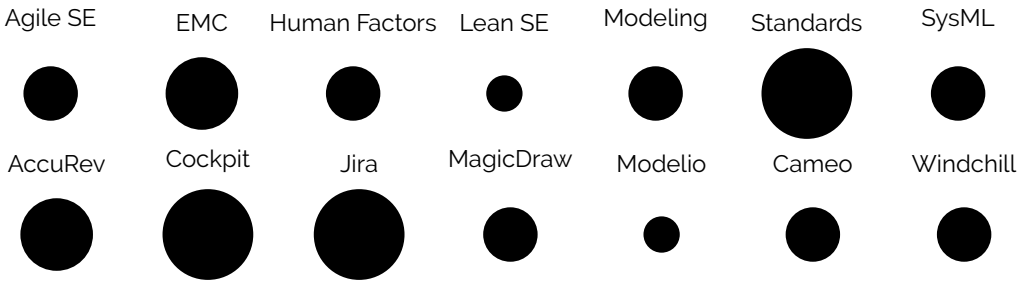
Principal Systems Engineer

nosnhojm@icloud.com
+1-651-357-0569
Lino Lakes, MN
www.nosnhojm.com
/in/nosnhojm

WHO AM I?

I am a Certified Systems Engineering Professional (CSEP) with over 15 years of experience designing complex medical systems. I have served as both a systems engineering technical lead and a systems engineering product owner for various medical devices and systems spanning cardiac rhythm management, cardiovascular interventions, peripheral interventions, and urology. My educational background was in electrical engineering (MS) and computer engineering (BS) with a focus on embedded software design, computer architecture, and semiconductor physics.





EXPERIENCE

02/19 – Present **Principal Systems Engineer** — **Boston Scientific, Cardiac Rhythm Management**

Systems engineering technical lead for a urinary control system which consisted of an active implantable medical pump and urethral cuff, a patient handheld control unit, a clinician and patient mobile phone application, and a clinician website for patient management and device analysis. Responsible for technical planning, technical monitoring, needs elicitation, stakeholder and system requirements definition, system architecture and design definition, product line modeling, regulations and technical standards assessment, configuration and change management, and process definition.

`Needs Elicitation / Requirements Definition / Architecture Modeling / Product Line Modeling / Configuration Management / Process Definition`

03/17 – 02/19 **Principal Systems Engineer** — **Boston Scientific, Interventional Cardiology**

Systems engineering technical lead for a trans-aortic valve replacement (TAVR) delivery system and a rotational atherectomy system. Responsible for technical planning, technical monitoring, needs elicitation, stakeholder and system requirements definition, system architecture and design definition, product line modeling, regulations and technical standards assessment, configuration and change management, and process definition.

`Needs Elicitation / Requirements Definition / Architecture Modeling / Product Line Modeling / Configuration Management / Process Definition`

03/09 – 03/17 **Principal Systems Engineer** **Boston Scientific, Cardiac Rhythm Management**

Systems engineering product/feature owner for a remote patient management system consisting of an active implantable medical device (implantable pacemaker, implantable cardioverter defibrillator, and cardiac re-synchronization therapy device), a patient home monitor, and a clinician website for patient monitoring and device analysis. Responsible for technical planning, technical monitoring, stakeholder and system requirements definition, system architecture and design definition, product line modeling, regulations and technical standards assessment, configuration and change management, and process definition.

`Requirements Definition / Architecture Modeling / Product Line Modeling / Configuration Management / Process Definition`

04/07 – 03/09 **Senior Systems Engineer** **Boston Scientific, Cardiac Rhythm Management**

Systems engineering product/feature owner for a clinician programmer/recorder/monitor (PRM) system and a pacing system analyzer (PSA) system. Responsible for technical planning, technical monitoring, stakeholder and system requirements definition, system architecture and design definition, regulations and technical standards assessment, system integration, system verification & validation testing, and configuration and change management.

`Requirements Definition / System Integration / Verification & Validation / Configuration Management`

06/05 – 04/07 **Systems Engineer II** **Boston Scientific, Cardiac Rhythm Management**

Systems engineer for an active implantable medical device (implantable pacemaker, implantable cardioverter defibrillator, and cardiac re-synchronization therapy device) system. Responsible for system integration and system verification & validation testing.

`System Integration / Verification & Validation`

EDUCATION

2005 – 2009 **Master of Science in Electrical Engineering** **University of Minnesota, Twin Cities**

Summa Cum Laude

2001 – 2005 **Bachelor of Science in Computer Engineering** **Rose-Hulman Institute of Technology**

Magna Cum Laude, Certificate in Semiconductor Physics

CERTIFICATIONS

CSEP **Certified Systems Engineering Professional** **INCOSE**

International Council on Systems Engineering

AWARDS

2019 **John Abele Science & Technology Award** **Boston Scientific**

HeartLogic Heart Failure Diagnostic