


# Stuart Miller


Embedded Software Engineer

## CONTACT

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Pella, IA 

## EDUCATION

### MS Computer Engineering

Missouri University of  
Science & Technology

*Rolla, MO*

August 2017 - May 2019

**Emphasis in Embedded Systems**

### BS Computer Engineering

Missouri University of  
Science & Technology

*Rolla, MO*

August 2013 - May 2017

**Minors in Computer Science &  
Mathematics**

## SKILLS

C / C++

Qt & QML

Matlab / Simulink

Linux / Embedded Linux

SAE J1939 - CAN bus

Git

CI / CD

Software requirements

JIRA project management

Hardware troubleshooting

Makefiles

## EXPERIENCE

### Vermeer Corporation

*Pella, IA*

Embedded Software Engineer II

May 2021 – Present

Embedded Software Engineer I

May 2019 – May 2021

Embedded Software Engineer Co-Op

May 2018 – Dec. 2019

- Develop machine control software for Vermeer's next generation horizontal directional drills using C/C++ and Simulink and display software in Qt.
- Bring the first horizontal directional drill on the common platform, the [Vermeer D550](#), to market.
- Architect the software, hardware, and system integration of a common platform for all next-generation horizontal directional drills, designing for current and future needs such as automation and operator-less machines.
- Work extensively on low level common hardware abstraction layer C code shared across segments of the company.
- Introduce CI/CD workflows using Github Actions; whereas previously all builds & tests were run manually.
- Collaborate with hardware vendors to introduce new controller hardware, purpose-built for Vermeer's needs, and oversee its adoption into the existing programming environment.
- Develop a communication scheme based on SAE J1939 DM14-DM16 messages for automatic adjustment, retention, and secure transferal of protected parameters between machine control units.
- Complete an accelerated project to update port legacy software to new hardware when supply chain constraints threatened key product lines.

### Garmin International

*Olathe, KS*

Embedded Software Intern, Aviation

Oct. 2015 – May 2016

- Worked as part of a team to develop kernel layer drivers and interfaces for Garmin's G1000-G5000 series cockpit display solutions.
- Completed a refactor of part of Garmin's module testing environment to allow for enhanced software verification at the system level.

### The Boeing Company

*Olathe, KS*

IT Intern, Business Systems Data Warehouse & Analytics May 2015 – Aug. 2015

- Gained experience working in a large corporate environment.
- Assisted in updating and rewriting finance web portal code.