

Stuart Miller

505 Peace St.
Pella, IA 50219

816-785-4105
stewythe1st@gmail.com

Objective To obtain an internship or co-op for 2018 in the field of embedded software engineering.

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. 2018
<ul style="list-style-type: none">• Develop machine control software for Vermeer's next generation horizontal directional drills using Simulink and C/C++.• Develop display software using Qt, representing the first Vermeer drill with touchscreen capabilities.• Architect the software, hardware, and system integration of a common platform for all next-generation horizontal directional drills.• Design future-proof systems based on the needs of current automation features as well as desires for expansion and R&D.• Bring the first horizontal directional drill on the common platform, the Vermeer D550 to market.• Troubleshoot software, electrical, hydraulic, and mechanical problems in collaboration with other engineering teams.• Drive development towards purpose-build in-house software solutions instead of relying on proprietary programming environments and tools from specific vendors.• Collaborate with hardware vendors to introduce new controller hardware, purpose-built for Vermeer's needs, and oversee its adoption into the existing programming environment.• Introduce CI/CD workflows using Github Actions; whereas previously all builds & tests were run manually.• Work extensively on new low level common hardware abstraction layer C code to be shared across segments of the company.• Develop a communication scheme based on SAE J1939 DM14-DM16 messages for automatic adjustment, retention, and secure transferral 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
Software Engineering Intern, Aviation	Oct. '15 - Aug. '16
<ul style="list-style-type: none">• Developed and tested software used on aviation displays and user interfaces• Worked closely within the constraints of hardware to write effective embedded C code• Completed a refactor of part of Garmin's module testing environment to allow for enhanced software verification at the system level• Participated in software development lifecycle activities such as code reviews, software verification, and code coverage analysis	

The Boeing Company St. Louis, MO
IT Intern, Business Systems Data Warehouse & Analytics May '15 - Aug. '15

- Worked closely with offshore resources to manage the transition of finance web portal code from Adobe Coldfusion to ASP .NET
- Provided analysis on existing PL/SQL Queries and database structure
- Used Tableau analysis software to create data visualizations and dashboards

Education Missouri University of Science and Technology (Missouri S&T) May 2019
M.S. Computer Engineering
Emphasis in embedded systems

Missouri University of Science and Technology (Missouri S&T) May 2017
B.S. Computer Engineering
Minors in Computer Science & Mathematics

Skills	C / C++	Qt	GNU Make / Makefiles
	Linux / Embedded Linux	Git Version Control	Matlab / Simulink
	SAE J1939 & CAN bus	CI / CD	Jira Project Management
	Test-Driven Development	Hardware Troubleshooting	Software Requirements