

Reginald Marr

Application for Senior Firmware Developer at Bourgalt Industries

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Dear Hiring Manager,

I am writing to express my genuine interest in the Senior Firmware Developer role at Bourgault Industries. As an individual with a robust background in system integration, automation design, and embedded programming, I am enthusiastic about leveraging my skills and experiences to contribute to your new Electronics team.

My tenacity for ambitious projects took root during my university years, where I engaged in diverse challenges—from software development for a Solar Car team to hands-on welding for post-grad courses and competing in collegiate sailing regattas. This early passion found a professional path at L3Harris-Wescam, where I held roles in sustaining and new product integration. Notably, I automated numerous tasks, created key documentation, and initiated mentorship programs for new hires, efforts that culminated in my promotion to New Product Integration (NPI) Designer.

Early in my career at L3Harris-Wescam, I played a pivotal role in organizing a hackathon as a promotional event. Recognizing the potential of machine learning and vision applications in the future of embedded systems, I took the initiative to design and develop a Board Support Package (BSP) and accompanying user application. These resources served as foundational tools for competitors, enabling them to craft sophisticated solutions using NVIDIA TX2 development boards. This endeavor not only fostered a vibrant and collaborative environment among participants, but it also afforded me invaluable insights into the challenges and rewards of deploying machine learning solutions on embedded platforms. My hands-on work in this event demonstrated my proactive approach to technical leadership, capacity for forward-thinking innovation, and my adeptness in facilitating learning and development opportunities for others.

As an NPI Designer, I played a critical role in various domains, including lens, laser, and ground control systems. I was at the helm of developing a new laser range finder, starting from scratch in a company with no established expertise in optical systems. This demanding project required extensive collaboration across software, mechanical, electrical, and electro-optical engineering teams. Proudly, we delivered a product with a range performance that exceeded our competitors by approximately 2x.

I am acutely aware of the complexities involved in embedded software development for agricultural machinery, given my upbringing in a rural setting and hands-on involvement in farming tasks and equipment maintenance. My direct experiences range from developing data distribution pipelines, designing device driver frameworks to maintaining tractors and I think this combination of skills align exceptionally well with the responsibilities detailed in your job listing.

My extensive background in embedded programming, specifically with C/C++ and various embedded operating systems, positions me as an ideal candidate to drive the development of software for Bourgault Industries' cutting-edge seeding equipment. I am particularly excited by the opportunity to evaluate and implement sensing technology and algorithms and to guide the integration of these systems into your agricultural products.

With Bourgault Industries' mission to deliver reliable and advanced farm equipment worldwide, I am keen to contribute my extensive system integration experience and intricate understanding of agriculture. I am inspired by your commitment to innovation and can visualize the tangible impact that my skills and experiences can make on your Electronics team.

If my profile appears to be one which matches what you are looking for; lets chat.

Best regards,

Reginald Marr