

Mr. Patrick Andrew Sweeney

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Dear Ma'am or Sir,

With 5 years of professional experience, and over a decade of experience as an enthusiast, my background in microprocessor usage and system design has me primed and ready to attack your next great project. After recently putting the finishing touches on a 4 processor robotic control system, I am looking for my next exciting challenge. That machine, with a full WindowsCE based user interface, and a collection of 8-bit processors, has just shipped its first units to Sweden, Portugal and across the US. As head of the Software Engineering department for my company, I worked, with an assistant, to design and implement the firmware on all 4 processors of that system. This design was hot on the heels of a 2 processor system designed for a smaller price point market. It also required working tightly with the Electrical and Hardware engineers to ensure the hardware was up to the tasks defined by the product designers, something that not every position and company requires. That relationship continued to the troubleshooting phase of the product design, even once it was deployed in the field.

While working on this, and other embedded systems, I have professionally worked with more than 5 different embedded processors, including the 8-bit Z-World/Rabbit Semiconductor Rabbit 3000, StrongARM, Intel XScale, Zilog Z80, and x86 in an embedded PC104 environment. My embedded languages have included C, "DynamicC", and assembly. I am familiar with common techniques for I/O, memory management, as well as issues relating to size/speed considerations in firmware design. My most recent challenges have been in multithreaded applications and in motion control systems.

My technical skills also extend to the desktop. I have assisted on, and completed, large C and C++ projects for major corporations. On the side, I have completed and maintained more than a dozen client websites, including those using such advanced techniques as SQL databases, and CGI scripts. Most recently, I have been researching the use of C# for its uses on the desktop in the design of utility programs, as well as paired with the Microsoft "Compact Framework" on the StrongARM and XScale processors for use in User Interface Devices (or HID, Human Interface Devices).

Before coming to the realization that there was a career in working with microprocessors, I was an avid hobbyist. My first exposure was while I attended Technical High School. As a member of the Electronics department, I spent 50% of my High School education exposed to analog and digital circuit design and analysis. In my Junior and Senior years, I enlisted the help of a State of CT approved instructor to tutor and mentor me in the use and programming of processors. I was led through the breadboarding of a complete Z80 based system which was machine code programmed using toggle switches. This started a personal habit of always investigating new firmware topics and techniques, and always having a project at home to be working on. That is a trend that continues to today!

I am prepared to bring this experience and desire to expand my knowledge to your company. In my current and most recent position, I am a member of the company's Senior Engineering team, and have held a position of management in order to bring products and projects to completion in a timely manner. This position has also required me to travel across the country to help assist in the sale, deployment and design of the machines.

As long as your company continues to create new projects and products, and is welcoming of new technologies, techniques and ideas, I would continue to be there to ensure your success in these endeavors.

Thank you kindly for you time in considering me as an addition to your company,

Patrick Sweeney