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Dear Hiring Manager,

I'm a programmer and Computer Science student seeking to make a career change from Music Instruction to Software Engineering. Three years ago, I caught the bug for programming, and after a lot of self-studying and building my own projects, I decided to return to school; I'm on schedule to graduate in December 2025.

I'm eager to take part in work that is both meaningful and important, so naturally, the job listing for Software Engineer Intern at AST stood out to me. I'm interested in work that relates to healthcare. Looking into aseptic processing, it seems like a perfect domain to hone my software engineering skills while engaging in work that provides a great benefit to society.

I have a wide range of interests in technology, but I'll cover just a few. Early on, I developed a strong interest in low-level programming with C and C++. I worked through a book called Bare Metal C, which introduced me to the world of STM32 microcontrollers. Continuing to explore Embedded Systems, I've tinkered with MCUs such as Texas Instruments' MSP430 and most recently, I've begun to look into FPGAs. In short, I find work that involves both writing software and tinkering with hardware quite interesting.

In pursuit of other interests, I've compiled a portfolio of side projects, including a Django/Python inventory management web application that I built for a coffee shop, and a CLI app built with C and sqlite to keep track of my students' progress in my job as a music instructor. Another example, I created a CLI app called Hasse Diagram Generator written in Rust, which takes in a partially-ordered set and models it with a Hasse Diagram. In designing this project, I translated the principles of Hasse diagrams and partially-ordered sets directly from my Discrete Math textbook into Rust code. I found the process of wrangling the abstract concepts in a math book and transforming them into code both challenging and rewarding.

To sum up, I'm excited for a chance to tackle a variety of difficult and engaging problems. I have much to learn and I'm highly motivated to do it. I'm ready to take my skills to the next level as a Software Engineer Intern at AST. Thank you for your time!

Sincerely,  
Sean Reed