Diogo Silva

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Dear Recruiter,

If I'd describe myself in a single phrase, it would be: I was made to build things. I enjoy making things, specially if they're useful, if they add value to someone's life, if they're of service. My weapon of choice is computer programs. That's what I wanted to do since I was about 8. And that's what I've been doing for the last 15 years, first in school and, afterwards, professionally, not to mention personally. Python has been with me for the last 10 years. I've used it to develop robots, machine learning and artificial intelligence models, servers, web scrapers and more. I've also used C, C++, Java, Matlab, Javascript and, more recently, Elm. More important than specific tools is the appreciation for the fine art of problem solving. Later, I started teaching C programming to first year university students, where I share my passion and my vision of what problem solving using computers is about.

For the last 5 years, my development has been focused mostly on backend support systems for our UAV architecture in the Air Force Academy's Research and Development Center, under the umbrella of international and national research initiatives, like SUNNY, TROANTE and FIREFRONT. Still, I've also dabbled with full stack endeavors, building, among other things, a backend system capable of receiving video and data streams from a network of multiple UAVs and feeding an authenticated users in the frontend with the authorized feeds. I've migrated a legacy C++ codebase and extended it to Python. I've even had to spoof our own (ill documented) systems to reverse engineer their protocols. Whatever the problem, I dive in, no matter the stack level - I will strace myself to a solution, if need be.

I'm used to own what I build. If it breaks, I fix it. If it's hard to maintain, I feel the pain. It's not someone downstream who gets to deal with the consequences of design or implementation flaws. That has taught me important lessons: thinking in systems, architecture design, documentation, testing, reproducibility and environment isolation, to name a few. All of these go well beyond the realm of computers, but here, they're paramount. More importantly, it has taught me the need to always be learning and always be eager to share what I've learned. Making something is an unending process. Continuous improvement is the key.

Sincerely,

Diogo Silva