IPAC at Caltech

Hello,

My name is Fletcher Porter. I'm a software developer and I'm interested in your Applications Developer position.

I recently worked at Oblong Inc. developing appliance software for their Linux-based Mezzanine system. My work included qualifying new hardware for the system to run on, audio programming in Python with PulseAudio, troubleshooting hardware audio issues on Cisco codecs, maintaining Oblong's API serialization and RPC libraries in C++ and Python, front-end and back-end programming for the system's administration tools in Go, Ruby, Javascript, and HTML, configuring the system's Nginx HTTP server, and video programming with Gstreamer in C. Throughout my work, I improved unit test coverage, inline documentation, workflow documentation, Docker configurations, Continuous Integration (CI) pipelines, and code quality so the next developer would have an easier time than me.

Prior to that, I worked with a volunteer group responding to the COVID-19 pandemic to develop an open-source ventilator splitter. The work I did was much the same as at Oblong but with the addition of embedded Linux programming to read data off of GPIO temperature and pressure sensors on a Raspberry Pi. I also took on many administrative tasks like become the Board Secretary, applying for and receiving IRS 501(c)(3) non-profit status, and applying for a bank account.

On my resume you'll see that my education is in the realm of hardware. Design, CAD, simulations, machine tools, and assembly is all familiar fare to me.

I think I'd be very well suited to this position with IPAC. A large portion of my work with Tetra Bio Distributed was developing a graphical user interface for medical data captured from hardware sensors. I was given broad license to interpret and implement the project requirements, and ultimately developed a successful program. I also have a great passion for science, which led me to taking on several internships at JPL.

I also have strong communication skills which I've practiced in formal presentations, reports, and papers for the work I have done, a few of which are available to view in my portfolio, available at http://fletcherporter.com/.

Thank you for your consideration. I hope to hear from you soon.

Cheers,

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