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Lockheed Martin
5600 W Sand Lake Rd,
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Greetings,

I am interested in the early career software engineering position posted on your careers page and am passionate about developing low-level code and doing that at Lockheed Martin would be a pleasure. In addition to having experience with each basic qualification listed, I spend much of my time outside of my classes learning more skills. For instance, on top of completing my systems programming assignments, I typically also spend time rigorously testing them with various scripting languages, not only to verify them but also to get more experience trying to break something that is working so I can improve it and get better at proving that a program actually handles all kinds of exceptions.

Further, after developing firmware for a variety of microcontrollers, writing drivers and applications utilizing numerous peripherals (Timers, UART/SPI/I2C, ADC, DAC, etc.), and implementing an RTOS, I've begun to learn about what I don't know, but more importantly, developed my problem-solving skills so that I can overcome any unknown I encounter. On top of the RTOS, I wrote a series of programs dealing with a variety of other applications, such as a 3D graphics app, using a DSP library to sample a signal and visualize the magnitudes of frequencies at a configurable granularity and a face detection app using a machine learning model. For each, it was me and the manual, and the experience of grinding through the problems until I understood all of the levels of abstraction present so that I could produce as good of a finished product as possible was satisfying.

While there is no substitute for experience working on real, production-level projects, through my research experience with the Embedded Systems Lab at UF, I spent time working with graduate students and other undergraduates on verifying real trusted execution environment (TEE) solutions. Learning about TEEs was not my only goal; I also benefitted from the opportunity to dive into the implementation of Intel's TDX module, gaining experience from reading and understanding production-level code and ultimately developing a model to encapsulate the data confidentiality mechanisms. Further, the TDX model was to be used by various other groups. So, while developing it, I had to operate within a set of constraints for how the code must be organized, look, and documented.

I look forward to hearing back from Lockheed Martin. If you have any questions, please reach out through my cell, (904)-571-7566, or email me at emmett.kogan@gmail.com. Thank you for your time.

Regards,

A handwritten signature in black ink that reads "Emmett Kogan". The signature is written in a cursive, flowing style.

Emmett Kogan