

Tesla**January 2021 – August 2021***Silicon Development Intern – Autopilot Hardware Group (Full-time)**Palo Alto, CA*

- Aided bringup of the newly-received compute die by delivering a temperature and voltage heartbeat so the hardware team wouldn't melt the silicon
- Provided SPI, temperature, and voltage drivers for third-party IPs, and a software solution for a bug in the SPI silicon
- Implemented, integrated and rigorously tested a software architecture designed to funnel temperature and voltage data over the buggy SPI
- Synced a python script to protobuf messages received from the hardware's UART, and automated sending requests to the hardware via .JSON files
- Cleared a SW bottleneck blocking coworkers from building QSPI images by creating a Python script with linux-like commands working around the LittleFS library
- Gained experience writing firmware running ARM CMSIS RTOS wrapper for FreeRTOS, including drivers, interrupt handlers