

Karl Solomon

Embedded Software Engineer

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EDUCATION

The University of Texas

B.S. Biomedical Engineering; GPA: 3.65

Austin, TX

Aug 2013 – May 2018

EXPERIENCE

- Stryker** San Jose, CA
Software Design Engineer Jun 2018 - Present
 - SW Lead and majority SW contributor for *SYNK 4K* wireless video platform.
 - Designing SW architecture, implementing RTOS-based application code and LL/HAL drivers for NPD.
 - Authored SW requirements, specifications, and design documents to meet FDA standards (IEC 62304).
 - Multiple trips to manufacturing facility for board bring-up on early prototypes.
 - Merged over 150 pull requests and resolved over 100 JIRA bugs (at the time of writing).
 - Recognition: “One Team” Cultural Beliefs Award (Q3 2019), “Best Performance in a Leading Role” (2019), “SYNK 4K Employee of the Month” (Aug 2019, Jan 2020).
- The University of Texas Biophotonics Lab** Austin, TX
Software Engineer Nov 2017 - May 2018
 - Designed PCB and optical assembly for hand-held iPhone case to detect malignancy of skin tumors.
 - Developed Swift application to collect images and determine probability of malignancy.
 - Developed Swift + OpenCV program to calibrate camera and light source prototypes for clinical trial.
- Stryker** San Jose, CA
Software Engineering R&D Intern May 2017 - Aug 2017
 - Designed workflows for *1688 Camera Control Unit (CCU)* GUI.
 - Developed manufacturing test for board supplier to identify errors in 1688 CCU assembly.
 - Developed computer vision algorithm for unreleased feature (to be integrated into next-gen camera).
- St. Jude Medical** (*Acquired by Abbott Jan 2017*) Plano, TX
Software Engineering R&D Co-Op Jan 2016 - Aug 2016
 - Automated 90% of manual GUI SW tests for *SCS/DBS patient and clinician controller iOS apps*.
 - Trained machine learning OCR tool (Tesseract) to automatically verify over 2000 strings between 2 iOS apps across 14 languages.
 - Developed automated test which reduced iOS regression test time from 2 weeks supervised to 9 hours unsupervised (with automatic deploy & test hook upon new iOS beta or official release).

SKILLS

Languages	SW Tools	Protocols	Targets	Peripherals	Equipment
C	Git	UART	Arm Cortex-M	Camera	Oscilloscope
C++	FreeRTOS	SPI	Linux	EEPROM	Logic Analyzer
Python	OpenCV	I2C	iOS	LED Driver	Spectrum Analyzer
Java	JIRA	USB	Android	Flash	DMM
C#	Jenkins	HDMI	Windows	RTC	Solder Iron