

**PROFESSIONAL EXPERIENCE**

**Apple Inc., Cupertino, CA, USA**

*iPhone Hardware System Design Engineer*

*Dec. 2020 - Current*

Immersed in hardware design of the next generation of iPhones on the System EE team; focused on system integration, coexistence, schematic design, PCB layout guidance, EE parameter simulations, rigid and flexible board DFM, prototype bring-up, validation testing, root causing and fixing any system level issues. Involves high collaboration with cross functional teams on system trade-offs and design decisions. Furthermore, working closely with external contract manufacturer on assembly line setup, product testing, failure analysis, firmware bring-up and yield protection.

**Axon Enterprise Inc., Scottsdale, AZ, USA**

*Electrical Engineer- Video Camera Division*

*Mar. 2019 - Dec. 2020*

- Led the system architecture design around processor chip-set for Axon's next generation wearable point-of-view camera 'Flex3'. Designed, tested and setup early prototype manufacturing for its point-of-view camera and 6 Gbps MIPI video transportation system. Also worked on design and implementation of audio integration with police radio comm. systems.
- Successfully launched body worn camera 'AB3' by contributing to work on image sensor flex, MIPI video interface noise mitigation, PCBA design for RF noise mitigation, image sensor fixed pattern noise mitigation, USB signal integrity, mics and speaker characterization, GNSS performance characterization (GPS and GLONASS), PCBA DFM, mass production ramp and component second sourcing.

Keywords: Optical Fibers, MIPI SERDES, EMI radiated susceptibility testing, FPGA, Land Mobile Radio, PDM & PCM audio, MEMS microphone, MIPI CSI2 video interface, SLVS-200, image row noise, image black level, 4G LTE RF noise, GNSS CEP and Time-to-First-Fix, USB Eye diagram.

*Engineering Development Program (Rotational Program)*

*Jun. 2017 - Mar. 2019*

Rotated between different projects and held roles of Electrical Engineer, NPI Project Manager and Firmware Engineer.

- Designed from scratch the battery charging & Ethernet data offload stations *Docks* for the 'AB3' camera. Successfully completed architecture design, component selection, circuit design, schematic capture, BOM management and cost, PCB layout guidance and inspection, DFM with contract manufacturer during fabrication and assembly, functional test and debugging of finished PCBA.
- Project management of 'AB3' *Docks* with the contract manufacturer in Mexico to setup the assembly line, chart out required post-assembly tests, provide technical guidance to test fixture manufacturers, setup supply chain networks for all the required electronics, plastics, metals, labels and packaging, consolidate the schedule and ship the completed product.
- Redesign and validation of the battery charging and data aggregators *Docks* for the latest weapon 'Taser7'. Worked on Li-Po battery charging, multi-cell balancing, battery protection circuit as well as designed and implemented the charging/balancing algorithm in Embedded C. Modified the *Docks* design to pass ESD compliance.

Keywords: Switching DC/DC converters, linear regulators, USB 2.0 high speed, USB 3.0 super speed, USB-C port configuration, USB PD, Qualcomm Quickcharge 3.0, USB to Ethernet bridge, RJ45, MDI/MII ports, Li-Po battery charging and protection, active multi-cell balancing, Cypress PSoC4, ESD protection IEC61000-4-2.

**The Wharton School, University of Pennsylvania, Philadelphia, PA, USA**

*Student Expert-in-Residence – Wharton Entrepreneurship*

*Aug. 2016 - May 2017*

Provided technical guidance to entrepreneurs in electronics design and manufacture of hardware products.

**PUBLICATION**

Gois P., Sreekantaswamy N., Basavaraju N., Rufino M., Sebastiao L., Botelho J., Gomes J., Pascoal A. (2016). "Development and Validation of Blue Ray, an Optical Modem for the MEDUSA class AUVs", IEEE 3rd Underwater Communications and Networking Conference, La Spezia, ITALY

**INTERNSHIPS**

**Barn Owl LLC, Colorado Springs, CO, USA**

*Product Development Lead*

*Jun. 2016 - Aug. 2016*

**Instituto Superior Tecnico, Lisbon, PORTUGAL**

*Research Student at DSOR (Dynamical Systems and Ocean Robotics) Laboratory*

*Jan. 2015 - Jun. 2015*

**California Institute of Technology, Pasadena, CA, USA**

*Research Fellow at LIGO (Laser Interferometer Gravitational wave Observatory)*

*Jun. 2014 - Aug. 2014*

Keywords: Optical Fibers, RF Photodiodes, Transimpedance transfer function, Network Analyzer, GPIB over Wi-Fi, Python.

**Indira Gandhi Centre for Atomic Research, Kalpakkam, INDIA**

*Summer Research Intern at NDE (Non Destructive Evaluation) Laboratory*

*May 2013 - Jul. 2013*

**EDUCATION**

**University of Pennsylvania, Philadelphia, PA, USA**

Master of Science in Engineering, Electrical Engineering, May 2017

**Birla Institute of Technology and Science, Pilani – Goa Campus, INDIA**

Bachelor of Engineering (Hons.), Electrical and Electronics Engineering, May 2015