**ABOUT ME**

I am a Post-graduate Computer Engineer with about five years of experience as a Software Designer and System Engineer seeking full-time opportunities in the field of Systems/Software design. My ideal new role would involve analyzing product requirements and designing/developing scalable solutions.

**EDUCATION**

**Master of Science, Electrical and Computer Engineering** Dec 2019 (Expected)

University of Florida, Gainesville, FL GPA 3.66/4.00

Relevant Coursework: Principles of Computer Systems Design | Computer Architecture | Distributed Operating Systems | Advanced System Programming | Virtual Computers | Image Processing and Computer Vision

**Bachelor of Technology, Electrical and Electronics Engineering** May 2016

National Institute of Technology, Trichy (NIT Trichy), India GPA 7.20/10.00

**PROFESSIONAL EXPERIENCE**

**Systems Engineer** January 2020 – Present

Qualcomm, San Diego, CA

* Developed python scripts to automate importing vendor safety analyses to Qualcomm framework.
* Developed python scripts to automate documentation sanity checks and validating documents.
* Developed a visual representation of SoC and IP level safety systems design and architecture for effective customer engagement.
  + Designed system architecture diagrams highlighting the safety architecture/features at the IP and SoC levels.
  + Analyzed IP level design details to incorporate IP interfaces at the SoC level.
* Coordinated with 30+ IP teams to understand the IP-level safety architecture and interfaces at SoC level to present at customer engagements.
* Authored and reviewed internal and customer-facing functional safety architecture documents and requirements.

**Safety System Engineering Intern** May 2019 – Aug 2019

Qualcomm, San Diego, CA

* As a Safety System Engineering Intern, worked with a team of Engineers and Managers to implement the Tool Qualification process for the Qualcomm tools and products per ISO26262, the international standard for functional safety of electrical and/or electronic systems.
* Analyzed the gap between the international standard and the existing functional safety compliance in the Qualcomm tools and provided a methodology to bridge this gap. Designed a tool qualification kit per ISO26262 for Qualcomm tools.

**Graduate Research Assistant** Oct 2018 – Present

ECE department, University of Florida, FL

* Working with Professor Dr. Sandip Ray on hardware-software co-validation research targeting firmware validations using formal verification methods.
* Developed and implemented a machine learning based detection and mitigation system to introduce robustness in the Co-operative Adaptive Cruise Control in autonomous vehicle research.

**Software Designer** July 2016 – July 2018

Alstom Transport, Bangalore, India

* Collaborated with designers in developing embedded systems software for ERTMS by applying key principles of computer engineering and embedded systems at ALSTOM Belgium.
* Delivered software solutions consistent with the product roadmap and released plan milestones.
* Analyzed and implemented system and software enhancements/debug requests from project teams
* Key learning: Software Architecture | Software development and verification process | Storage Area Network

**Train Control Validation Intern**  May 2015 – July 2015

Alstom Transport, Bangalore, India

* Designed and developed a simulation of Low Voltage Control Logics, implementing the train control system design.
* Key learning: ControlBuild | NI LabVIEW | NI PXI cards | Train control

**PROJECTS**

**TWITTER CLONE** Sep. 2019 – Dec. 2019

* Designed and implemented a scalable and distributed twitter clone system as part of the Distributed Operating System course.
* The web app provides functionalities like user account/cred management, live feed, follow, unfollow, tweet, retweet, mention and hashtag
* Languages and framework used:
  + Back-end: Elixir | Phoenix
  + Front-end: HTML

**ROBOTIC ARM EQUIPPED SOLAR POWERED HYBRID ELECTRIC WHEELCHAIR** Aug. 2014 – Mar. 2015

TEXAS INSTRUMENTS INNOVATION CHALLENGE INDIA DESIGN CONTEST 2015

* Designed, developed and fabricated an embedded system and power controller for dual robotic arm equipped wheelchair
* Semifinalists | Top 86 teams out of 1209 | TIIC IDC – 2015

**SMART WATCH** Jan. 2014 – Mar. 2014

SANGAM – PRAGYAN 2014

* Designed, fabricated and developed a Smart Watch with Android UI with MSP430 microcontroller under the budget of $30.
* 2nd runner up in circuital category at SANGAM – PRAGYAN 2014.

**SKILLS**

Programming Languages: JAVA | C# | Python | C/C++ | HTML | XML | Elixir

Databases: PostgreSQL | MySQL

Frameworks: Spring | Phoenix

**LEADERSHIP EXPERIENCE**

**Cofounder and Lead Volunteer – HumaNITTy, Trichy, India** Sep. 2014 – July 2018

National award-winning philanthropy movement. As a lead volunteer, guided fellow students in events of Joy of Giving.