

## Education

---

- **M.S. Electrical Engineering, SUNY University at Buffalo, Buffalo.** Jan 2022–May 2023
- **B.Tech Electronics and Communication Engineering, SRM University, Chennai, India** 2016–2020

## Skills

---

- Languages: Python, MATLAB, C++
- Design Tools: Advance Design Systems (ADS), CST Microwave Studio, IXUS, Roofmaster, GNU Radio, Atoll, MapInfo
- Hardware: Vector Network Analyser, Spectrum Analyser, Arduino, R-Pi, LoRaWAN, 8051

## Work Experience

---

**RF Engineer** **GCB Services** **Oct 2023–Present**  
FCC Compliance test team Mckinney, TX

- Led a team in planning, executing, and developing methodologies for **FCC Compliance** testing of over 400 Hex-7's for DISH Wireless 5G NR Infrastructure.
- Utilized advanced RF optimization techniques, including cluster testing, ATP, 5-2-2, and XCAP software, to improve network performance, call quality, and efficiency.
- Developed a live tracker to display tester locations in real time on Google Earth through custom KML layers, enhancing team visibility and significantly impacting efficiency across projects. ([GitHub](#))
- Utilized **RF Simulation and Modelling** tools like IXUS, RoofMaster, FUZE to effectively generate EME compliance reports.

**Research Lead** **WINGS Lab** **Sep 2022–May 2023**  
Chip-less RFID development team University at Buffalo, Buffalo

- Improved tag reading accuracy by 40% by developing SDR-based Chip-less RFID reader.
- Enhanced functionality by developing an Out-of-Tree (OoT) block in GNU Radio, adding dynamic center frequency adjustment. Leveraged skills in Linux and Python.
- Reduced cost of physical prototyping by optimizing designs through simulations in **CST Studio**.
- Optimized tag design by comparing S-parameters calculated using **Vector Network Analyser**

## Certifications & Licences

---

- **Cisco Certified Network Administrator ( CCNA ) - 200-301**
- **FAA Part 107 Certified Drone Pilot**

## Projects

---

- Analyzed digital modulation schemes in MATLAB, comparing BER and SER curves for optimum receiver detection. Utilized Jake's Fading Simulator to implement MIMO systems. ( [Github](#) )
- Achieved minimal power loss, optimal circuit matching, high radiation efficiency in SHF band in Patch antenna design simulations using **Ansys HFSS**. ( [GitHub](#) )
- Increased signal strength, reduced interference, minimized signal loss and improved circuit performance by designing and simulating 3-section microstrip directional couplers in **ADS**. ( [GitHub](#) )