Dallas, Texas
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Dhruval Potla

LinkedIn
Portfolio Website
GitHub Profile

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 5GNR 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 tools like IXUS, RoofMaster, FUZE to effectively generate EME compliance reports for Verizon. Effectively communicated exceedance issues to clients and improved Project Management efficiency by automating various processes.

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**

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)
- Designed and simulated Low Noise Amplifier (LNA) circuit in QUCS. Achieved desired gain with excellent stability (S21) surpassing stringent specifications. (GitHub)
- Leveraged skills in **C programming**, knowledge of on-chip communications protocols (SPI, I2C, UART) by implementing hardware and software interfacing of CC2650 with LoRa and Sigfox LPWAN technologies.
- Improved gender classification accuracy by 45% for blurry fingerprint images using CNN and TenserFlow Keras. Leveraging skills in **python** and signal processing. (GitHub)