JOHNS GEORGE BENNY

Senior DSP Firmware Engineer

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PROFILE SUMMARY

- 3+ years of work experience in the 5G & Data Center domain
- Experienced in Linux, 5G, O-RAN, Middleware, Yocto Project, Application Software, and Software Integration

EXPERIENCE

Senior Engineer (SW)

VVDN Technologies Pvt. Ltd

📅 Nov 2020 – Aug 2021   📍 Kochi, Kerala

Femtocell & Macrocell O-RUs

- Development of system software and ORAN-WG4.MP.0-v02.00.00 compliant applications
- Systems design of the unit
- Board bring-up
- Created the build eco-system for the entire project using GNU Make, Xilinx toolchain, BitBake recipes and version-controlled BSP projects
- Integration of third-party software packages and libraries

Engineer (SW)

VVDN Technologies Pvt. Ltd

📅 July 2018 – Nov 2020   📍 Kochi, Kerala

PHY Layer Implementation of 5G Repeater

- End-to-End PHY layer processing from demodulation to channel decoding
- Implemented algorithms for phase compensation, channel estimation and equalisation, and channel decoding of PBCH, PDCCH and PDSCH channels
- Decoded the MIB obtained after decoding PBCH, DCI_1_0 message from PDCCH, and SIB1 message from PDSCH channel
- Extracting the tdd-ul-dl-configCommon field from SIB1 and UPER decoding the L3 data into ASN1 format

Cloud Native TLS Acceleration

- Validation testing of FPGA designs for implementing accelerated cloud security on AWS f1 instances
- Writing bash scripts for testing, and for setting up newly created f1 instances
- Writing test application to provide debugging support for customer's proprietary IP

KEY RESPONSIBILITIES

- O-RU software development
- Project repository maintenance
- Bring-up of radio unit boards
- Overall integration of software packages, libraries, and applications
- Direct interactions with customer for clarifications and enhancements

EDUCATION

B.Tech in Electronics and Communication Engineering

Viswjyothi College of Engineering and Technology

📅 2014 – 2018   📍 Ernakulam, Kerala, India

7.55 CGPA

SKILLS

Linux   5G   O-RAN   NETCONF
YANG   Middleware
Yocto Project   Linux Device Drivers
AWS EC2 F1

C   C++   Bash   Board Bring-up
BSP   U-Boot
Software Integration   GNU Make
GNU Debugger

TOOLS

Git   CI/CD   Jira

Markdown   Doxygen

- Patching the AWS XDMA driver, and Xilinx QDMA driver
- Tcl scripting