

## Contact

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## Top Skills

ARM

Digital Signal Processors

SoC

# Venugopal Reddy

Principal Engineer at Qualcomm  
Bengaluru, Karnataka, India

## Summary

Experienced Software Architect with a demonstrated history of working in the wireless industry. Strong engineering professional skilled in Embedded Software, Device Drivers, C++, Field-Programmable Gate Arrays (FPGA), and Digital Signal Processors.

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## Experience

### Qualcomm

11 years

#### Principal Engineer

December 2023 - Present (2 years 4 months)

Bengaluru, Karnataka, India

#### ML Systems for ADAS

ML frameworks and Optimization of the models for Qualcomm H/W

DSP libs for image processing, Audio processing and ML applications

#### Sr. Staff Engineer

December 2019 - December 2023 (4 years 1 month)

Subsystem communication and synchronisation

DSP libs for image, ML and video processing

Bus Bandwidth Compression

SoC SW Performance optimization

#### Compute Software Architect

August 2016 - December 2019 (3 years 5 months)

Bengaluru Area, India

Identify the use cases for compute SS

Performance evaluation and analyzing bottlenecks

Contributing to Halide language

Enhancing Android Framework for Compute

Heterogeneous Compute infrastructure

#### Staff Engineer

April 2015 - August 2016 (1 year 5 months)

TZ/Security and system stability for OEM Products  
Debug and resolve the Issues in TZ/Security on customer End Devices  
Recommendation of Debug system enhancements

## ARM

7 years 9 months

### Senior Design Engineer

January 2011 - March 2015 (4 years 3 months)

Workload analysis and performance Optimization

Identify the performance Bottleneck in use cases and Industry Standard benchmarks

Working with consortium's like EEMBC, SPEC

Compiler Option tuning for best Performance

Assembly and Intrinsic Optimization of Critical functions of Benchmarks/  
Usecases

Performance evaluation against competition

### Design Engineer

July 2007 - January 2011 (3 years 7 months)

Implementing and Optimizing LTE Phy for SIMD architecture.

Assembly optimization of DSP/Signal Processing functions

Code Optimization for NEON

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## Education

Indian Institute of Technology, Kanpur

M.Tech, DSP + Communications · (2005 - 2007)

G Pulla Reddy Engg College

B.Tech, ECE · (2001 - 2005)