

Shashank Punia

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EDUCATION

Visvesvaraya Technological University

Bangalore, India

B.E Electronics and Communication Engineering - 9 CGPA

Graduation Date: May 2018

WORK EXPERIENCE

Qualcomm

Bangalore, India

Senior Hardware Design Engineer (XR)

Aug 2021 - Present

- Collaborated with key stakeholders at Google, Meta, Microsoft, LGE, Lenovo, and other leading companies in the XR industry to design and develop their XR (AR & VR) products using our chipsets.
- Led the design stages during the complete life-cycle of customer products including design of schematics, SI, Layout CAD, BOM/Life-cycle management, PCB bring-up, functional testing, and DVT performance and validation.
- Developed and implemented innovative testing methodologies to simulate high-speed interfaces such as USB, PCIe, CSI, DSI, and LPDDR4/5x for signal integrity validation, resulting in a 20% time reduction and increased efficiency.
- Created and maintained detailed documentation for chipset-specific materials, including datasheets, power projections, schematics, layouts, and reference guides, resulting in a 30% increase in efficiency during the product development process.
- Implemented innovative design solutions that resulted in a 20% reduction in power consumption in customer designs.
- Developed and executed a comprehensive strategy to debug customer issues, resulting in a 50% decrease in average issue resolution time.

Robert Bosch

Bangalore, India

Hardware Design Engineer

Jan 2018 - Aug 2021

- Designed schematics for Window lifter and Sunroof ECUs on vehicles like Audi, BMW, Toyota, and Porsche.
- Performed worst-case calculations, design simulations, part selection, BOM analysis and plant management.
- Executed module testing for life cycle determination and product validation.
- Designed motor driving circuits for ARM-based controllers and sensorless control solutions.
- Performed CAR, 8D, FMEA, FMEDA, FTA and 5-Why for field failures in products.
- Architected and implemented complex embedded systems resulting in a 20% reduction in product's BOM, saving the company over \$500,000.

Bharat Electronics Ltd (BEL)

Bangalore, India

Summer Research Intern

Jul 2016 - Aug 2016

- Designed and tested a 2kW wideband power amplifier at Telecom and Broadcasting Systems SBU.
- Designed an amplifier rack body using OrCAD PCB Designer along with SolidWorks to mount on military trucks.

Bharat Heavy Electricals Limited

Bangalore, India

Research Intern

Jan 2016 - Feb 2016

- Designed Industrial water level monitoring and control system on Simatic S7 PLC software.
- Designed a system for the automation of the Industrial Cooling System with WinCC Simulator.

ACHIEVEMENTS

Publications and Awards

- 2nd and 3rd place at Qualcomm Ideathon, an annual innovation challenge event
- 1st prize at Navarathi, a paper presentation competition by Robert Bosch
- South Zone Winner at Tata Crucible Hackathon 2021
- Winner of Shark Tank - IEEE India 2021
- Winner at REIMAGINE WASTE Hackathon, IISc Bangalore
- Semifinalist, International Ericsson Innovation Awards
- Winner at CeBIT IoT Hackathon
- 3rd Prize at MediaTek International IoT Challenge
- Best Geek Group award at Hack.Bangalore Hackathon by Mercedes Benz Research and Development India
- 2nd prize at Bosch Inscribe, a national-level paper presentation competition
- 1st Prize at ABB Makeathon
- 1st prize at SRISHTI 2016, a state-level project competition conducted by ABVP, India
- Semifinalist, International Ericsson Innovation Awards
- Represented my project at NASSCOM Product Conclave 2016
- Research paper published at IEEE-CONECCT 2021 Conference