

# Shashank Punia

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## Summary

I am a full stack hardware design engineer who builds products using my hardware, software and product designing skills to solve real-world problems.

At Qualcomm, I'm a Senior Hardware Engineer working on the latest 5G mobile architecture and developing solutions for the Metaverse.

At Robert Bosch, I was responsible for the research and development of comfort actuator ECUs for Sunroofs, Window-lifters, Mirrors and Wipers at the Electronic Drives department in Germany.

My responsibilities include: Schematic design, Design calculations, Simulations, Architecture development, Component selection, BOM analysis, Endurance testing, Product validation and documentation. I am experienced in the design and development of automotive communication protocols such as CAN, LIN, Ethernet and FlexRay. As a certified FMEA moderator, I have delivered FMEA reports and several functional safety relevant documents to OEMs such as Audi, Porsche and GM.

I was also a Bosch Ambassador, an elite group of individuals who are responsible for the social media presence of the company.

Apart from work, I head international projects as the International Service Director of District 3190. I also devote most of my free time as a mentor to school kids that are recognised by a non-profit called United Efforts.

## Experience



### Senior Hardware Engineer

Qualcomm

Aug 2021 - Present (2 years 2 months)



### Hardware Design Engineer

Bosch Global Software Technologies

Jul 2018 - Aug 2021 (3 years 2 months)



### Research Intern

Bosch Global Software Technologies

Jan 2018 - Jul 2018 (7 months)



### Summer Intern

Bharat Electronics

Jul 2016 - Aug 2016 (2 months)



## **Research Intern**

Bharat Heavy Electricals Limited

Jan 2016 - Feb 2016 (2 months)

## **Education**



### **Bangalore Institute of Technology**

Bachelor of Engineering - BE, Electrical, Electronics and Communications Engineering

2014 - 2018

## **Licenses & Certifications**



### **Equivalent Circuit Cell Model Simulation (with Honors) - University of Colorado**

AA8VHVXGXRDDG



### **Introduction to Self-Driving Cars - University of Toronto**

JMF8T9FPXAZT



### **Agile Meets Design Thinking - University of Virginia Darden School of Business**

5BN5JSKTC9C9



### **Business Analytics for Decision Making - University of Colorado Boulder**

24CHQCE63X6Q



### **Introduction to Marketing - The Wharton School**

8ZHDD5V2CGZC



### **Business Metrics for Data-Driven Companies - Duke University**

TSXQQVDX2C8U



### **eCARS03x: Electric Cars: Business - Delft University of Technology**

210ed496c88943a6b60250197d3d659d



### **SW47x: Entrepreneurship in Emerging Economies - Harvard Business School**

a16d8c6aeff54db8bc6b3868b233ed16



### **Google Analytics Individual Qualification - Google**

Issued Jul 2020 - Expires Jul 2021

54637958



### **Customer Analytics - The Wharton School**

CCB3JMLL34C8



**Strategic Management of Innovation** - HEC Paris

SB3RCJ66X688



**Introduction to Financial Accounting** - The Wharton School

SJVZNGS84C7F



**State Estimation and Localization for Self-Driving Cars** - University of Toronto

6PHX3WKNWWFJ



**German Language Proficiency - A1 & A2** - Bosch



**FMEA Moderator** - Bosch Global Software Technologies

11417964



**2.961.2x: Management in Engineering: Strategy and Leadership** - MITx Courses

1236727b90db411580857bb85196810a

## **Skills**

Functional Safety • Analog Circuit Design • Electric Vehicles • Computer Vision • Failure Mode and Effects Analysis (FMEA) • Image Processing • Machine Learning • User Experience (UX) • Simulations • Data Science

## **Honors & Awards**



**1st prize at SRISHTI 2016** - Akhil Bharatiya Vidyarthi Parishat (ABVP)

May 2015

A state level project competition conducted by ABVP, India

Project on a unit comprising of wirelessly communicating autonomous sub-systems that make use of image processing, embedded systems with sensors and algorithms specially designed for surveying and managing agricultural landscapes for optimizing crop production



**1st prize at Sincrona 2016** - Dept of ECE, Bangalore Institute of Technology

Apr 2016

Annual Project competition conducted with more than 100 projects exhibited from various branches



**1st prize at ABB Hackathon** - ABB - ASEA Brown Boveri

Sep 2016

24 hrs hackathon to develop a smart home automation with a modular smart case "SMACO", National Level Annual Tech Symposium of BMS College of Engineering.



### **University Round Winner at IET - PATW 2017** - The Institution of Engineering and Technology

May 2017

University round winner of the IET Present around the world competition among 200+ participants.



### **2nd prize at Bosch Inscribe 2016** - Bosch

Nov 2016

National level technical paper presentation competition, Inscribe 2016 organised by Bosch, India.



### **NASSCOM Product Conclave 2016** - NASSCOM

Oct 2016

Selected among 400 startups and individual projects to showcase my product "AgroSquad" at the NASSCOM Product Conclave



### **Best Geek Group award** - Mercedes-Benz Research and Development India

Nov 2016

24 hrs hackathon on developing solutions on the topic "Digital Infotainment & Connected Cars". The project DriX, A voice-enabled intelligent driving-pattern recognition and analyzing system to enhance driving experience and security, while recording real-time driving behavior data from individualized systems for data extrapolation.



### **3rd Prize at MediaTek Labs IoT challenge** - MediaTek

Feb 2017

A virtual hackathon powered by AngelHack to build the next generation's smart home or office device using the MediaTek LinkIt Development Platform for RTOS or the MediaTek LinkIt Smart 7688 platform.



### **Semifinalist, Ericsson Innovation Awards 2017** - Ericsson

May 2017

Represented India as the top 13 out of 907 teams that entered into the global university student competition across the world.



### **1st prize at CeBIT Global Hackathon** - CeBIT and IoT Labs in partnership with Intel and Bosch

Dec 2016

The CeBIT IoT hackathon is India's largest IoT themed Hackathon, Winner among top 100 shortlisted teams that took part in the 24 hrs long hackathon.



### **Special award at REimagine Waste 3 Hackathon** - Indian Institute of Science

Sep 2018

A small device with a form-factor of a pen embedded onto the lid of a manhole. The lower section of the device which is exposed to the inside of the manhole while the lid is closed - comprises of sensors which detect the level of water inside the sewer and sewer gases which include methane, carbon monoxide, carbon dioxide and nitrogen oxides. The data is gathered to a master station which communicates these devices installed at each manholes over LoRaWAN and sends the data to a cloud

server which hosts a dashboard for monitoring purposes. Installation of these devices throughout the city will allow a preventive solution to identify and pin-point the location of clogged sewer line before the wastewater reaches the surface.



**1st prize at Navarithi, an idea presentation - Robert Bosch**

Jun 2019

An idea presentation competition organised by Bosch for its employees throughout Bangalore region.



**SHABASH award - Robert Bosch**

Aug 2019

Innovative thinker- Winner of YuvaNaveenya 2019- Navarithi and excellent ramp up as a freshers in project team.



**Winner of Shark Tank - IEEE India 2021 - IEEE India**

Jan 2021

Shark Tank is an event where aspiring entrepreneurs from around the world pitch their business models to a panel of investors and persuade them to invest money in their idea.



**South Zone Winner at Tata Crucible Hackathon 2021 - Tata**

Jul 2021

An annual event that brings talents all over India (3000 teams) to solve real world problems