

# **RESUME**

## **Sagar Shah**

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## **Professional Experience:**

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- 3 years of experience in ASIC Verification.
- Functional Verification of design at IP level using SV-UVM.
- Experience of developing Verification IP (VIP).
- Experience of dynamic low power verification using UPF.

## **Professional Skills:**

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HDL	:	Verilog, VHDL.
HVL	:	System Verilog
Methodology	:	UVM
Programming Language	:	C, C++.
Protocol knowledge	:	SATA(DL), MIPI D-PHY, I2C, MIPI SLIMbus
Power intent standard	:	UPF
Scripting	:	Shell
EDA Tools	:	VCS-MX, Questa-sim, NCSIM
Operating System	:	Windows, Linux.
Revision Control Tool	:	CVS, SVN, Perforce

## **Experience:**

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- Working as an ASIC Verification Trainee Engineer at eInfochips From December 2013 to June 2014.
- Working as an ASIC Verification Engineer at eInfochips From June 2014 to September 2016.
- Working as an ASIC Senior Verification Engineer (Level 1) at eInfochips since October 2016.

## Projects:

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### Project #1

<b>Project</b>	<b>MIPI SLIMbus (v2.0) VIP Development</b>
<b>Role</b>	Team Member
<b>Platform</b>	System Verilog, UVM
<b>Tool</b>	VCS-MX, Questa-sim, NCSIM
<b>Duration</b>	Since May, 2016
<b>Responsibility:</b> <ul style="list-style-type: none"><li>• Created verification environment structure.</li><li>• Created top module files for different topologies and including dynamic change/pause of clock and active framer handover support.</li><li>• Created basic transaction sequences and generic APIs for<ul style="list-style-type: none"><li>◦ Messages</li><li>◦ Transport protocols</li></ul></li><li>• Developed Test-plan for Frame layer, Message protocol and Transport protocols (Isochronous, Pushed, Pulled and Asynchronous).</li><li>• Implemented test-cases for all mentioned categories mentioned above and debugged it.</li></ul>	

### Project #2

<b>Project</b>	<b>Dynamic Low Power Verification</b>
<b>Role</b>	Team Member
<b>Team Size</b>	4
<b>Platform</b>	UPF, System Verilog, VHDL
<b>Tool</b>	VCS-MX (MVSIM/NLP)
<b>Duration</b>	6 Months
<b>Responsibility:</b> <ul style="list-style-type: none"><li>• Developed Test-plan for below mentioned categories for Verilog design and MX design.<ul style="list-style-type: none"><li>◦ Isolation</li><li>◦ Retention</li><li>◦ Corruption</li><li>◦ Different design attributes</li><li>◦ Port attributes</li></ul></li><li>• Implemented test-cases for all mentioned categories mentioned above and debugged it.</li></ul>	

### Project #3

<b>Project</b>	<b>SATA VIP Development</b>
<b>Role</b>	Team Member
<b>Team Size</b>	8
<b>Platform</b>	System Verilog, UVM
<b>Tool</b>	Questa-Sim
<b>Duration</b>	10 Months
<b>Responsibility:</b> <ul style="list-style-type: none"><li>• Created basic verification environment structure.</li><li>• Developed packet creation logic from sampled data stream.</li><li>• Physical Layer:<ul style="list-style-type: none"><li>○ Implement power mode features.</li><li>○ Defining functional coverage and achieve agreed coverage.</li></ul></li><li>• Link Layer:<ul style="list-style-type: none"><li>○ Coded FSM for Link layer (Primitive support).</li><li>○ Implemented Power mode features.</li><li>○ Implemented Error injection support.</li><li>○ Defining Test-plan for Link layer (which covers all Primitive) and Power mode.</li><li>○ Test-case writing and verification of Link layer; also to verify erroneous scenarios.</li></ul></li><li>• Defining functional coverage and achieve agreed functional coverage.</li></ul>	

### Project #4

<b>Project</b>	<b>Microblaze processor based SoC verification</b>
<b>Role</b>	Team Member
<b>Team Size</b>	5
<b>Platform</b>	System Verilog, UVM
<b>Tool</b>	Questa-Sim
<b>Duration</b>	4 Months
<b>Responsibility:</b> <ul style="list-style-type: none"><li>• Creating Environment for Unit Level Testing.</li><li>• I2C Unit Level Verification:<ul style="list-style-type: none"><li>○ Defining Test plan, which covers basic scenarios of I2C protocol.</li><li>○ Defined Verification Architecture.</li><li>○ Developed verification environment.</li><li>○ Developed test-cases and debugged the RTL using it.</li><li>○ Implemented and Achieved agreed functional coverage.</li><li>○ Achieve agreed code coverage.</li></ul></li></ul>	

### **Project #5**

<b>Project</b>	<b>MIPI D-Phy VIP Development</b>
<b>Role</b>	Team Member
<b>Team Size</b>	4
<b>Platform</b>	System Verilog, UVM
<b>Tool</b>	VCS
<b>Duration</b>	4 Months
<b>Responsibility:</b> <ul style="list-style-type: none"><li>• Creating basic verification Environment structure.</li><li>• Developed test-cases and debugged the VIP using it.</li><li>• VIP Component Development:<ul style="list-style-type: none"><li>◦ Transaction Class,</li><li>◦ Configuration Class,</li><li>◦ Scoreboard.</li></ul></li><li>• Developed Shell script and Makefile for test-case run-flow.</li><li>• Handling regression management.</li></ul>	

### **Educational Qualification:**

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- **Bachelor of Engineering** in **Electronics & Communication**, from Vishwakarma Government Engineering College, Ahmedabad, Gujarat Technological University (2009 - 2013) with CGPA of 8.31 (7.78 CPI).
- **H.S.C** with 83% (89% merit) from G.S.E.B (2009)
- **S.S.C** with 84.92% from G.S.E.B (2007)

### **Personal Information:**

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Full Name	:	Sagar Shashikant Shah
Date of Birth	:	5 <sup>th</sup> Feb, 1992
Nationality	:	Indian
Sex	:	Male
Marital Status	:	Married
Linguistics known	:	Gujarati, Hindi, English
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