VATSAL SHAH

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SUMMARY

- Having experience to architect, design, develop and maintain IOT and software product
- Detail-oriented, Dedicated and have Problem-Solving, Presentation, Communication skills with ability to manage multiple tasks in a fast paced
- Team player engineer and has developed several web applications and home automation system

TECHNICAL SKILLS

Operating System:	Windows, Linux
Languages:	Node JS, JavaScript, SocketIO, jQuery, Ajax, JSON, HTML, CSS
Databases:	MySQL, Sqlite3, MongoDB
Web/Application Server:	Apache, AWS
Embedded Programming Tools:	Raspberry Pi, Arduino
Others:	AWS IoT, AWS Lambda, AWS Bucket, OAuth2.0

PROFESSIONAL EXPERIENCE

Aug'16 – Aug '18 **Embedded Software Engineer** **Deepkiran Foods PVT LTD**

Project:	**IoT based Home/Office Automation System**
Hardware/OS:	Raspberry Pi / Linux
Database:	Sqlite
Tools/GUI/Other:	Node JS, SocketIO, JavaScript, Ajax, JSON, HTML, CSS, Apache2, OAuth2.0, Google and Alexa Custom Skill,
Cloud:	AWS
Role:	Project Lead, System Study, Hardware Design, Database Design and Application Development

Overview:

It is automation product to control electrical devices (lights, fans, ACs) from phone, computer or any WiFi enabled device. This project offers complete solution including hardware and software.

- Acted as Team Leader and involved in a system design, database design and prototype design
- Composed an app to allow voice control of electrical devices using a Google Assistant and Amazon Echo with Raspberry Pi.
- Developed Timer and Schedule functionalities to turn on/off on decided time
- Interfaced Camera with System to see from outside the network
- Attached Different Sensors as Temperature Sensor and Door Sensor
- Scheduling, Customize Mood and Notification for Sensor and Gateway
- Lambda function AWS for AWS IoT Button and Alexa and Google Custom Skill
- Hosted on Amazon AWS EC2 Instance to run Node JS on Linux platform
- Used AWS bucket for backup database
- Integrated IR Sensor to control IR Devices like AC, TV, etc.
- Website: www.spikebot.io

Mar '16 – Aug '16 **Software Engineer** **Mentor Power Software**

Project:	**Tournament Management System**
Hardware/OS:	Linux
Database:	MySQL
Tools/GUI/Other:	Node JS, JavaScript, Ajax, JSON, HTML, CSS
Cloud:	AWS
Role:	System Study, Functional Design, Database Design and Development

Overview:

It is a software product to organize an event, manage data and generate a result in the different format on the website.

- Designed and Developed a website, Database design and workflow of project
- Designed complex Draw mechanism and can use in any sports tournament
- Designed Auto Create Draw and Auto Create Result functionality in a system

Project:	**Client Management System**
Hardware/OS:	Windows OS
Database:	MySQL
Tools/GUI/Other:	Java, JSP, Servlet, JavaScript, JQuery, Ajax
Cloud:	AWS
Role:	System Study, Design and Website Development

Overview:
It is a customized project to make changes in client's system on an existing system.
- Enhancement of current system and remove bugs
- Suggested points to improve interface design
- Allowed Import and Export documents from a website

UNIVERSITY PROJECT

Nov '15 – Aug '16 **Final Year Project** **Indus University**

Project: **IoT based Robot**
Hardware/OS: Linux
Database: MySQL
Tools/GUI/Other: Java, JSP, Servlet, JavaScript, JQuery, Ajax, Pi4J
Role: System Study, Database Design and Website Development

Overview:
It is a prototype to use a Robot as Buddy at Home or Office to help in different activities. A User can see and control from anywhere. Camera, Sensors and Controlling Motors are interfaced in a system.
- The purpose is to control robot with an Interfaced board of the Raspberry P and software to full fill real would requirements
- Live streaming, Command the robot easily, sends data of different sensors which works automatically or control from anywhere at any time.
- Interfaced IR Sensor, Temperature Sensor and Ultrasonic Sensor to detect obstacles and ladder
- Mentioned by Leading Newspaper, Divyabhaskar on 11th May, 2016 and Interview with Radio City 91.1FM on 12th May, 2016.

Mar '15 – Nov '15 **Project** **Indus University**

Project: **Floor Cleaning Robot**
Hardware/OS: Linux
Tools/GUI/Other: Arduino Mega, MIT App Inventor, Bluetooth
Role: System Study, Prototype Design and Software Development

Overview:
It is a prototype to use a Robot as Floor cleaning robot. The purpose of the project is to design and implement a Vacuum Robot to Control Autonomous and Manual via Phone Application.
- Interfaced different sensors as LDR Sensor for Day and Night Timing, Ultrasonic Sensor to detect Obstacles.
- Developed application in MIT App Inventor
- Developed a system to work on Schedule based, can change mode via Application in Autonomous or Manual Mode
- Mentioned by Leading Newspaper, DNA on 23rd Nov, 2015.

Apr '14 – Mar '15 **Software Developer, Team Leader** **Indus University**

Project: **Semi-Autonomous Robot**
Hardware/OS: Linux, Windows
Tools/GUI/Other: Arduino Mega, Arduino IDE, Eagle, IR Sensors, PS2 Remote, H-Bridge
Role: Theme Analysis, Prototype Design, Hardware and Software Development

Overview:
Robocon, short for Robotic Contest, to participation in this activity, is an end-to-end competitive experience from concept design of a system of robots programmed.
- Participated with other 40 Members for the first time in Robocon.
- Lead a team and overlooked the work of both mechanical, electronics and software teams.
- Mentioned by Leading Newspaper, DNA on 10th Nov, 2015.

EDUCATIONAL QUALIFICATIONS

Degree	School/College	Year	CPI/Percentage
Master, Software Engineering	University of Western Ontario, Canada	2019	--
B.Tech, Electronics & Communication Engineering	Indus University, Ahmedabad	2016	8.81/10
Class XII (G.S.E.B)	Divyapath Campus, Ahmedabad	2012	77.84%
Class X (G.S.E.B)	Shree Vidhyanagar High School, Ahmedabad	2010	87.69%