

WORK	Working with PayU India as software developer since October, 2015 Worked with Deloitte & Touche Assurance and Enterprise Risk Services India Pvt. Ltd. as Consultant from 15 July, 2013 to October, 2015	
ACADEMICS	National Institute of Technology, Jaipur, India <ul style="list-style-type: none">B. Tech in Electrical Engineering Saint Anselms School, Alwar, India <ul style="list-style-type: none">90% in All India Senior Secondary Certificate Examination86.2% in All India Senior Secondary Examination	July 2009 – May 2013 (GPA 7.85/10) May 2008 May 2006
PROJECTS	Payu India: Project: StoreCard - <ul style="list-style-type: none">Developed centralized engine to store Card Data using Spring framework, mysql and Hardware Security Module (HSM).Moved infrastructure from Netmagic cloud to Amazon Web Services (AWS).Moved encryption utility from HSM to AWS Key Management Services (AWS KMS). Citrus Payments(Acquired by PayU India): Project: User Management (UM) – <ul style="list-style-type: none">Developed user signUp, signIn and user Profile data restful API's in Spring framework using technologies like MySQL, Redis, Hibernate, Java8.Implemented Spring security OAuth 2.0 to generate user access tokens and to secure API's across PayU.Modified Spring OAuth2.0 to support token granters for user password, OTP (one-time password) and remember Me login scenarios.Performed live migration of user data tables (MySQL; >100 GB data) from one schema to another schema on a separate database without downtime. It is inspired by facebook's "Online Schema Change for MySQL" strategy to migrate data.Designed and developed highly scalable micro-services architecture from deeply-coupled monolithic application with more than 100K lines of code. Project: Vault (PayU centralized card storage engine – PCI compliant) - <ul style="list-style-type: none">Designed and developed PayU card vault from scratch using technologies like Dropwizard, java8, MySQL, MongoDB, Jersey, JDBI, Java Cryptography Extension, nginx.Developed card tokenize, retokenize, detokenize and save card API's. Integrated card processing systems with vault, so as to insure vault as centralized card storage engine.Developed a no downtime strategy for card migration from PayU UM database to PayU vault database. More than 7 million cards were migrated without any downtime. Project: International Payments (Integrates Payment modes like paypal, Global Collect etc.) - <ul style="list-style-type: none">Designed and developed International Payments project from scratch using technologies like Scala, akka http framework, mongo DB and Aerospike.International payments is a separate micro service to integrate International payment modes like Paypal, Global Collect. Deloitte: <ul style="list-style-type: none">Implemented end to end Identity and Access Management solution for fortune 500 clients.Designed and developed a web application using technologies like Struts2, IBM DB2 database, JSP and tiles framework. It served as the integration between SAP systems, IBM security Identity Manager and IBM security Access Manager. It automates the permanent access request for users in SAP systems.Implemented Single sign on to various applications using technologies like SAML, OpenAuth etc.	

Bachelor Thesis:

- **Competitive Strategic Bidding Optimization in Electricity Markets Using Bi-level Programming and Swarm Technique**

It aims to optimize the bidding price in electricity markets by obtaining Nash equilibrium.

- Used bi-level programming and Particle Swarm Optimization to attain Nash Equilibrium using practical constraints applicable for electricity generation and transmission.
- Used MATLAB to code and predict the bidding prices for day-ahead electricity markets.

Self-Projects:

- **Divyadrashti – (Top 15 finalists of IEEE President's change the World Competition 2011)**
 - 'Visual Assistance System' to aid the visually challenged people. The system transmits images captured by an onboard camera to a control module which then facilitates face/object detection/recognition. It can be considered as raw version of **Microsoft Cognitive Services: Introducing the Seeing AI project.** (<https://www.youtube.com/watch?v=R2mC-NUAmMk>)
 - Technologies used: Matlab, Zigbee, 8051 microcontrollers, sharp sensors, face recognition software.
- **Doctor Location Detector (Texas Instruments MCU Design Contest 2012.)**
<http://www.youtube.com/watch?v=VuOWjm2u3B8&feature=plcp>.
 - An application to locate the location of doctor in a hospital using RFID technology.
 - Made using TI MSP430 microcontroller, RFID modules and an application made in C#)
- **Smart traffic Light Controller (finals of Motorola Scholar Program: 2011-2012)**
 - Used a camera to capture traffic at a traffic light and applied Image processing to calculate the number of vehicles. (Took traffic feed from Jaipur traffic police for product prototype). It regulates traffic Signal timing according to the number of vehicles present at each signal.
- **Attendance Software** using RFID Module.
- **Mobile Phone Simulator** using GSM module.
- **GPS device** using GPS receiver, Raspberry Pi and google maps API.
- **Line follower, Obstacle detector, Grid solver and Autonomous robots.**
- **Students Innovation pavilion (GRIDTECH 2013 by Power Grid India)**
 - A robot was prepared for monitoring of live transmission/distribution lines.

TECHNICAL SKILLS

Languages	: Java, C, C++, Python, Scala
Technologies/Frameworks	: Spring, Spring security, JPA, JDBI, Dropwizard, OAuth2.0, Maven etc
Database	: MySQL, DB2, MongoDB, Aerospike
Others	: Matlab, GNU Octave, JIRA

EXTRA- CURRICULAR

1. Interned as an Embedded Engineer at Engineers Garage (www.engineersgarage.com) for two years (part time). Gave **seminars** and **training** on Embedded Systems, robotics.
2. Organized tech fests and robotic competitions in college.

PERSONAL DETAILS

- **Hobbies & Interests** – swimming, cricket, drawing cartoons series (published in local newspapers).
- **Language Skills** – English and Hindi

DECLARATION

I solemnly declare that all the information above is true and correct to the best of my knowledge. I am responsible for any discrepancy found.