

# Karan Shah

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## PROFESSIONAL EXPERIENCE

**Merlin Solar Technologies, USA** *Engineering Intern* Jun 2017 – Sept 2017

- Developed a system for transferring data from solar modules and remotely sending it to user.
- Assembled and designed data logging product for real time visualization of voltage and current.
- Worked in a team of 4, for designing a LabVIEW project that plots real time data from DC Electronic Load.

**Emerson Network Power (Vertiv), India** *Trainee Intern* Jun 2015 - Jul 2015

- Studied and examined various components used in UPS, DC power System and AC power System.
- Carried out different tests for UPS and DC power unit.
- Accomplished the task of checking the connections in different power systems.

**Omicron Sensing Pvt. Ltd, India** *Trainee Engineer* Nov 2014 - May 2015

- Accomplished the task of testing and debugging various products used in communications.
  - Manufactured PCB layout for communication system containing components such as Wi-Fi, GSM, ZigBee etc.
  - Managed a team of 8 people for developing low cost modules and marketed the product for the company.
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## PROJECTS

**Switched Capacitor DC-DC Converter** Sept 2017 – Dec 2017

- Designed a 2:1 voltage regulator with 2 phases.
- Used a reference paper to finalize the circuit and tested their goal
- Used Cadence Virtuoso to design the circuit and implemented the same.

**Power House Surveillance** Jan 2017 – Jun 2017

- Developed an embedded webcam that can be controlled through a website.
- Developed a surveillance system using the embedded webcam board.
- The system was equipped with PIR motion sensor and pan-tilt base for motion tracking.

**Personalized Display Frame** Jan 2017 – Jun 2017

- Developed an embedded system that displays personal information of the user such as pictures and calendar.
  - Designed the database for connecting the system to user's phone
  - Accomplished the task of designing the webpage along with the hardware connections between different components.
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## COURSES

**Graduate Courses:** Internet Security, Biometrics, Design and Analysis of Algorithm, Microprocessor System Design –1&2, Engineering System Design –1&2, Digital Filtering, Embedded System Design and Synthesis, Internet of Things, Introduction to Computer Vision, Advanced Low Power Digital and Mixed Signal Circuit Design.

**Online Courses:** Machine Learning, Introduction to Verilog and VHDL, Introduction to Operating Systems, Embedded System Design with Xilinx and FPGA, Linear Regression and Modeling

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## TECHNICAL SKILLS

**Programming Languages:** C/C++, Python, VHDL, Verilog, R, HTML, CSS

**Simulation Software:** MATLAB, Onshape CAD, OrCAD, Xilinx Vivado/ISE, Model SIM, LT Spice IV, Cisco Packet Tracer, Proteus, Microwind 3, Eagle PCB, Cadence Virtuoso, R Studio, Spyder

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## EDUCATION

**Northwestern University** Dec 2017

*Master of Science in Computer Engineering* CGPA : 3.7

**D. J. Sanghvi College of Engineering- Mumbai University, India** May 2016

*Bachelor of Electronics & Telecommunication Engineering* CGPA : 8.39