

# Sahil Jaya

## Electrical and Telecommunications/Networking Engineer.

Philadelphia, PA - Email me on Indeed: [indeed.com/r/Sahil-Jaya/315c8e2cf31a102d](https://indeed.com/r/Sahil-Jaya/315c8e2cf31a102d)

I am currently pursuing my Masters Degree in Electrical and Telecommunications Engineering. I have worked as a Network Engineer for Reliance Infrastructure Limited as an Intern, Computer Network Engineer.

Seeking jobs in the Electrical and Telecommunications Engineering and Computer Networks Industry

### WORK EXPERIENCE

#### Network Engineer

Reliance Infrastructure Limited - Mumbai, Maharashtra - June 2012 to September 2012

RELIANCE INFRASTRUCTURE LIMITED, MUMBAI, INDIA

- Network Engineer Intern | 06/12-09/12
- Implemented and monitored Data Networks for various corporate locations
- Administered network security, routing and switching.
- Executed company policies and regulations through FortiGate Firewall and routing.
- Performed link testing to check availability of all links on the network and submitted daily reports.

#### Computer Networks Project

Drexel University

OPTIMIZING SECURITY & ROUTING TO INCREASE LIFETIME OF WIRELESS SENSOR NETWORKS | 04/12-06/12

- Simulated different routing algorithms using MATLAB to determine which algorithms lead to better network lifetime.
- Executed different encryption and decryption algorithms such as S-DES, CBC-MAC
- Optimized security provisions based on different probability threats and increased network lifetime.

#### Wireless Systems Simulation

Drexel University

SIMULATION OF WIRELESS SYSTEMS | 01/12-03/12

- Simulated the Bartlett Beam-forming strategy to track the mobility of a wireless user to enable maximum power radiation in the correct direction.
- Estimated by simulation the effects of shadowing and fading on the signal strength of a mobile user.
- Simulated and plotted the variation of Bit Error Rate as a function of SNR for mobile users.
- Maximized the number of user per cell using techniques such as sectoring enabling frequency reuse.
- Simulated and demonstrated the advantages of using 2X2 and 4X4 MIMO Antennas with respect to the cell capacity.

#### Computer Architecture Project

Drexel University

SIMULATION AND ANALYSIS OF ALPHA PROCESSOR CACHE USING GEM-5 SIMULATOR. | 09/12 – 12/12

- Varied the size of the primary cache and analyzed its effects on the miss rate and execution time of different benchmarks.

- Varied the type and size of the branch predictor and analyzed its effects on the accuracy of branch prediction and execution time of different benchmarks

### **Embedded Systems Project**

S.D.M College of Engineering and Technology

SMART RAILROAD MONITORING SYSTEM | 09/10- 06/11

- Designed and programmed a system which used a QUECTEL M10\_HD\_V1.02 GSM module to issue mobile alerts to the nearest railway authorities and train drivers about undesirable and harmful track conditions such as flooding, fish-plate tampering and possibility of a head on collision by employing Infra-Red and Inductive Proximity sensors.

### **Modulation Techniques**

Drexel University

MODULATION TECHNIQUES | 04/12-06/12

- Simulated different modulation schemes such as QAM, PAM, FSK and PSK for different input signals and waveforms.
- Performed bit and symbol energy measurement of each modulation scheme for fixed inter symbol distance.

### **EDUCATION**

#### **M.S. in Electrical Engineering/Telecommunications Engineering**

DREXEL UNIVERSITY - Philadelphia, PA

2011 to 2013

#### **B.E. in Electronics and Communication Engineering**

SDM COLLEGE OF ENGINEERING AND TECHNOLOGY

2007 to 2011

### **SKILLS**

Cisco Certified Network Associate (CCNA), Efficient In Programming in C,C++,Java,Python and Network Programming,