



# SANDIPAN DAS

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## ⚙ Skills

### Professional Skills

#### PROGRAMMING

JAVA/J2EE	★★★★★
C#	★★★★★
C	★★★★☆
Python	★★★★☆
Node.js	★★★☆☆
Jquery	★★★★★
HTML5	★★★★★
Android	★★★★☆
SQL	★★★★★

#### SIMULATION

CST EM studio	★★★★☆
MATLAB	★★★☆☆

#### HARDWARE

PCB design	★★★★☆
Audrino, RPi	★★★★★

#### OTHERS

MS Office	★★★★★
LATEX	★★★★★
InDesign	★★★☆☆
Illustrator	★★★☆☆

### Personal Skills

Team Player, Proactive, Organized, Management skills, Adaptive, Interpersonal skills

## 🏆 Awards

[NordSecMob scholarship](#)  
EUROPEAN COMMISSION 2014

Extra Milers - for MWC  
ERICSSON, INDIA 2012

JOLT Award - for cross platform applications  
ERICSSON, INDIA 2011

## 🎓 Education

2015 - 2016  
EXPECTED IN JUNE

Master's Degree in Communication and Security  
KTH ROYAL INSTITUTE OF TECHNOLOGY, SWEDEN

2014 - 2015

Master's Degree in Communication and Security  
NTNU, NORWAY

2005 - 2009

Bachelor's Degree in Computer Science & Engineering  
JADAVPUR UNIVERSITY, INDIA

## 💼 Work Experience

06/15 - 08/16

Sikom Connect | **Embedded Software Engineer Intern**  
OTTO NIELSENS VEG 12, TRONDHEIM, NORWAY

- Sikom Connect makes products for home automation
- Created secure connection pool platform ensuring 99% uptime and enhancing performance
- Ensured loose coupling in framework for integration

10/14 - 03/15

NTNU TTO | **R&D Programming Assistant, Part time**  
DIGS, OLAV TRYGGVASON'S GATE 30, TRONDHEIM, NORWAY

- Developed mechanism for server side packet loss check
- Worked on a tool for monitoring packet loss in network
- Created a VPN client for efficient traffic routing

08/11 - 08/14

Ericsson India | **Senior Software Engineer**  
DLF IT PARK - II, RAJARHAT, KOLKATA, INDIA - 700156

- Architected customized BI tool for service management
- Worked on cross platform and native mobile apps
- Created VOIP client with 3<sup>rd</sup> party SIP services

08/09 - 08/11

PwC India Pvt Ltd. | **Full Stack Web Developer**  
BLOCK DN - 57, SECTOR - V, KOLKATA, INDIA - 700091

- Created web applications and portals
- Worked on process automation and improvement
- Client interaction and proposal drafting

## 👥 Volunteering Experience

2014

Trondheim Developer conference, Norway

2015

Internetdagarna, Sweden



## Projects During Studies

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- 08/15 - 01/16 **Designing low power gateways for Wireless Sensor Networks | KTH**
- Measured power consumption for various platforms viz. Rpi, Odroid, Beaglebone, OpenWRT
  - Devised radio duty cycling use cases on gateways for low idle power consumption
  - Removed unnecessary components consuming bus power
- 10/15 - 01/16 **Advanced vehicle detection clothing for cyclists using sensors | KTH**
- Used ultrasonic sensor, gyro sensor and accelerometer for system characterization
  - Characterization of sensors using ADC
  - Integrated product using a low power MSP 430 microcontroller
- 08/15 - 10/15 **Customized RFID tag with biosensor integration for advanced security | KTH**
- Developed customized RFID transmitter system with LC circuit and FSM
  - Created modulation scheme for transferring data from the RFID transmitter to receiver
  - Integrated an IR based heartbeat monitor to initiate the system for enhanced security
- 01/15 - 06/15 **Real time video streaming with RFID verification | NTNU**
- Created video streaming system using remote Rpi camera viewable on standard browser
  - Used motion JPEG-streamer protocol for streaming
  - Integrated product with RFID reader for initiating system with access control
- 01/15 - 06/15 **Customized server certificate for web application | NTNU**
- Created customized certificate from a Certificate Authority using a chain of trust
  - Distribute key exchange mechanism using Diffie-Hellman algorithm
- 01/15 - 06/15 **Multiplayer android game | NTNU**
- Developed a multiplayer [Android puzzle game](#) from scratch using Unity-3D
  - Designed database based on key-value pair with indexing for fast access
  - Used REST APIs to interact with server side
- 08/14 - 01/15 **Web application penetration testing using KALI Linux | NTNU**
- Used KALI Linux for finding out vulnerabilities in an application
  - Created a risk mitigation framework for managing the vulnerabilities using OWASP
- 08/14 - 10/15 **Simulation of Mobile Virtual Network Operator for QoS parameters | NTNU**
- Used MATLAB to simulate the MVNO environment
  - Checked the QoS parameters using the queueing length of the nodes along with latency
- 08/14 - 10/15 **Created a LAN and VPN in lab environment | NTNU**
- Simulate and create network environment using NS3
  - Created routing tables using OSPF and BGP protocols



## References

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### On request

I hereby declare that all the information provided here are true to the best of my knowledge.

**Sandipan Das**