

Subhash Kumar

CONTACT +91 981 647 9040 - agarwal.sk091@gmail.com

EXPERIENCES **Operating System Management and application development for t-hub**
Smartron (July, 2016 – present)

1. Container based Application research and development
 - Research on docker, lxd based container
 - Research on snappy core, proposed thome architecture and development
2. Application and thome application management architecture design
 - Built User Model for thome
 - Built Security & Authentication Model
 - Thome App Engine
3. Designed and Developed Software Development Kit for thome

INTERNSHIPS AND PROJECTS **Home Monitoring System**
Smartron (June, 2015 – Aug, 2015)

Developed an economical and Reliable System to Monitor Home using different parameter like Temperature, Humidity, Live video etc. It generates warning based on processed data.

RPI was used as a central Machine for server and controller to feed data generated by sensor. Analysis was done on the data obtained and was shown as a Notification warning in a website.

Technology RPI, Python, Bootstrap, PHP, HTML

UNDERGRADUATE THESIS **Network Management in Software Defined Network**
Supervisor: Prof. Timothy A. Gonsalves, Director, IIT Mandi (August, 2015 – June 2016)

QoS Service and traffic Engineering in Home/Enterprise Network using Open-flow and SDN Concept and reliability in that System.

Used Open-flow, Mininet, Pox (Python based Controller), Traffic Classification technique and QoS Policy.

- The major problem in the project to be tackled is to provide QoS and **service priority** on per user choice.
- **Different preference** option for different service and user.
- Easily deployable and controller running on cloud server.
- Used SQL and Json for data parsing.

TECHNICAL SKILLS **Languages:** C, C++, Python, Express.js (Node Js), PHP
Web Development: HTML, CSS, JavaScript, Bootstrap
Database Management: MySQL
Operating System: Windows, Linux(Ubuntu), Mac, Snappy (Ubuntu-core).
Misc.: L^AT_EX , Django web-framework, R, SNMP tools, Adobe Photoshop

EDUCATION **Indian Institute of Technology Mandi, India**
B.Tech in Computer Science and Engineering with Minor in Management August 2012 – June 2016

- Cumulative Grade Point Average: **6.98**

Gaya College, Gaya (Bihar), India
Senior Secondary(B.S.E.B.) 2011

- Cumulative Average: **66.4%**

Janta High School Dumariya, Gaya (Bihar), India
Secondary(B.S.E.B.) 2010

- Cumulative Average: **71%**

COURSE PROJECTS	<p>Globalone <i>Information And Database Systems</i></p> <p>Built an interactive organized photo base, which had features like upload images, buy/sell images, tag based auto complete search, like or dislike, paginated feeds. Developed this app using Django web-framework, MySQL, HTML5, BootStrap CSS, AJAX. Won the first prize out of 15 teams, for this project.</p>
	<p>Network traffic analyser <i>System Practicum</i></p> <p>CLI Tool to Monitor Network traffic and generate Graph. Used bash, SNMP, nmap, Python, gplot.</p>
	<p>Anti-collision System for blind turns <i>Design Practicum</i></p> <p>Develop a Product to detect vehicles on both side of blind curve and prevent accident, Specially in Fog area. This will give warning through light, sound or both based on weather condition. Used C, Arduino for this project.</p>
	<p>Hotel/Canteen Ordering System <i>Database Practicum</i></p> <p>Hotel Management System which has feature like Order food, book Table/Room, give rating to service, promotional offer and a Admin interface. Used PHP, MySQL, HTML, CSS.</p>
POSITION OF RESPONSIBILITY	<p>Coordinator, Space Technology and Astronomy Cell, IIT Mandi (May, 2014 – June, 2015)</p> <p>Web Coordinator , Exodia (Cult-Tech Fest), IIT MANDI (2015)</p> <p>Coordinator, National Service Scheme, IIT MANDI (Sep 2012 May – 2014)</p>
RELEVANT COURSEWORK	<p>Computer Science: Data Structures, Computation For Engineers, Computer Organization, Paradigms of Programming, Analysis And Design of Algorithms, Software Engineering, Network Management System, Information And Database Systems, Communicating Distributed Processes, Data Mining For Decision Making, Big Data and Map Reduce.</p> <p>Management Courses: Economics, Organization Management, Managerial Decision Making, Financial Accounting, Financial Management.</p>
EXTRA CURRICULARS	<ul style="list-style-type: none"> • Represented IIT Mandi in the Inter-IIT Sport Meet as Hockey Player in 2012, 2013. • Social Service: Taught children of rural areas in an initiative by Prayas, IIT Mandi • Represented IIT Mandi in the Inter-IIT Tech-meet IIT Bombay , 2014 and IIT Khadagpur, 2015 in Messier Marathon.
RECOMMENDATION	<p>Prof. Timothy A. Gonsalves Director, IIT Mandi Email : tag@iitmandi.ac.in</p>