

Hadassah Pearlyn

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Education

Master of Science in EE with emphasis on Telecommunication Systems

2014 - 2015 *Blekinge Institute of Technology, Karlskrona, Sweden*

Pursued Courses related to: Network Management, Applied Network Management, Software Development for Telecommunication Systems, Advanced Topics in Telecommunication Systems, Green Networking, Research Methodology, Simulation, Capacity Analysis

Bachelors of Technology in Electronics and Communication Engineering

2010 - 2013 *JNTUH College of Engineering, Hyderabad, India*

Pursued Courses related to: Data Communications, TCP/IP, Network Security, C programming

Certification

AWS Certified Solution Architect – Associate, AWS ASA - 13451

Academic Projects

Design and Implementation of CMT in real-time, *Master Thesis*

Description: Individual thesis on design and implementation of Concurrent Multipath Transmission using real-time 4G networks. The main theme was to implement CMT and evaluate the impact of various scheduling mechanisms like RRB, WRRB on performance parameters like throughput.

The approach that was used in the process was doing an exhaustive literature study, experimental research by setting up a testbed, socket programming and analysis of results. Various tools like Wireshark for capturing real time packets, Python is used for backend in order to transmit data have been used for the thesis.

Publication: <http://www.diva-portal.org/smash/get/diva2:861507/FULLTEXT01.pdf>

Network Management Tool, *Applied Network Management*

Description: Designed and built an automation tool that allows visual comparison between link layer performance metrics like bitrate and server metrics like CPU Utilization, req/sec etc. in real-time. Probe based operations based on SNMP were used to retrieve the metrics of the devices. The tool displays graphs on a web GUI for monitoring and comparing the metrics.

Apache was used as webserver, Perl was used for backend operations, PHP and HTML were used for designing the web GUI, MySQL database for storing and updating the data, RRDTool for plotting the graphs.

Remote Monitoring of Power Consumption in a Cloud Network, *Applied Network Management and Software Development for Telecommunication Systems*

Description: Worked in a team of 6 members where a tool was developed to monitor the power consumption of the network devices like UPS's, PDU's, compute nodes present in the cloud network. The tool retrieves statistics like current power, average power of the devices using SNMP, HTTP and SSH protocols.

A web GUI was designed to monitor the statistics that are retrieved in the form of graphs. Perl was used for retrieval of statistics and MySQL was chosen as backend database. PHP and HTML were used for designing frontend and RRD tool for plotting the graphs.

Extensively involved with different type of processes that are used for software engineering. Handled documentation required at each step of the process such as Project Proposal, Software Requirement Specifications, Design Document, Acceptance Test Plan, User and Developer documents.

Concurrent Multipath Transmission, *Advanced Topics in Telecommunication Systems*

Description: Research study was conducted about the background, needs, mechanisms and challenges of Concurrent Multipath Transmission related to the Future Internet under the guidance of Prof. Dr. Kurt Tutschku.

Reduction of fragile watermark computational complexity by use of AES encryption, *Research Methodology*

Description: The task was to conduct a research and implement a new method AES encryption scheme, for the reduction of computational complexity in the fragile watermark encryption. MATLAB is used for this purpose.

Knowledge Expertise

- Knowledge in Networking concepts, TCP/IP, OSI model
- Familiar with Virtualization technologies, Xen and KVM hypervisors
- Extensive knowledge of AWS concepts like EC2, S3, EBS, VPC, Route53, RDS.
- Hands-on coding experience with Bash, Perl, Python, PHP, HTML.
- Experience working with MySQL database.
- Hands-on experience with Git.
- Working experience on Linux (Ubuntu) and Windows platforms

Personal Traits

- Stay focused, can work well in a team as well as independently
- Ability to accept and tackle new challenges
- Keen to acquire knowledge on new technologies, concepts and get acquainted with the skills related to them
- Proficient communication skills with fluency in English