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Apurv MEHRA

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EDUCATION

- AUGUST 2014 Master of Technology in COMPUTER SCIENCE AND ENGINEERING
Dual Degree Program, [IIIT - Delhi](#), New Delhi
Masters Thesis: "Interoperability model for health information systems and associated benefits challenges and approach"
Advisor: [Dr. Amarjeet Singh](#)
CGPA: **9.30/10.0**
- MAY 2013 Bachelor of Technology in COMPUTER SCIENCE AND ENGINEERING
Finance Specialization, [IIIT - Delhi](#), New Delhi
B.Tech Project: "Improving healthcare efficiency using IT"
Advisor: [Dr. Amarjeet Singh](#)
CGPA: **8.16/10.0**
- MAY 2008 [Burnpur Riverside School](#), CBSE | Final Grade: **86.5/100**
- MAY 2006 [St. Vincent's High School](#), ICSE | Final Grade: **92.0/100**

WORK EXPERIENCE

- SEPT. 2014
Current Research Associate, MUC Group, IIIT - DELHI, New Delhi, India
Advisor: [Dr. Pushpendra Singh](#)
- **iCHS (Interoperable Collaborative Health System)**: Designed and developed a collaborative health information middleware based on Publish/Subscribe paradigm.
 - **Usable Security**: Designed and developed an Android based password security scheme for semi-literate health workers.
 - **Intelligent Query Allocation in Crowd Sensing Systems**: Developed and evaluated a framework for intelligent query allocation in crowd sensing systems. The objective of query allocation scheme was to improve the overall resource utilization of the system. [| link to source code](#)
- MAY - JUNE 2014 Associate, [ZENATIX](#), Gurgaon, India
Backend Engineer
Worked towards improving the robustness and scalability of the framework which collected data from smart meters and pushed it to the cloud infrastructure for analytics.
- MAY-JULY 2011 Summer Intern, [HISP - INDIA](#), New Delhi, India
Business Intelligence for Health Information Systems
Understood the e-Health Infrastructure set up of Himachal Pradesh state in India. Thereafter developed various reports using *Business Intelligence Reporting Tool* for analysis of hospital data.

MAY-JULY 2010	<p>Summer Intern, MUC GROUP, IIIT - Delhi, New Delhi, India</p> <p><i>Porting SANA to Symbian Phones For use in India</i></p> <p>SANA (earlier MOCA) is a MIT based open-source end-to-end telemedicine application in Android that facilitates the capture of medical data and physiological signals through a fully programmable workflow interface. The project involved designing and developing a Symbian client which could interface with the SANA middleware. link to source code</p>
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PUBLICATIONS AND DEMOS

1. Rushil Khurana, Sanchit Sharma, **Apurv Mehra**, Daksha Yadav, Vinayak Naik, and Amarjeet Singh. Jiah: Healthcare goes mobile. Proceedings of **M4D 2012** 28-29 February 2012 New Delhi, India, 28(29):102, 2012. [\[pdf \]](#)
2. Amarjeet Singh, **Apurv Mehra**, Sundeep Sahay. "Integrated Health Information Systems in Practice." Demo in **Nethealth** Workshop of **COMSNETS 2014** 7-10 January 2014, Bangalore, India. [\[url\]](#)
3. **Apurv Mehra**, Amarjeet Singh, Sundeep Sahay. "Integrating ICT Ecosystem For State Wide View Of Health Services: A Case Study For The State Of Himachal Pradesh India", Under **submission** in Special Issue of the Journal of Information Technologies for Development.[\[pdf \]](#)
4. R Wadhwa, **A Mehra**, P Singh, M Singh. "A Pub/Sub based architecture to support public health-care data exchange." Accepted in **Nethealth** Workshop in **COMSNETS 2015** 7-10 January 2015 Bangalore, India. [\[pdf \]](#)
5. Garvita Bajaj, **Apurv Mehra**, Pushpendra Singh. "Intelligent Query Allocation in Opportunistic Crowdsensing Framework", Under **submission** in **MobiSys 2016**,

TEACHING EXPERIENCE

AUGUST 2013	Teaching Assistant, IIIT - DELHI, New Delhi, India
MAY 2014	<i>System Management (CSE131, Fall 2013)</i>
	<i>Analysis and Design of Algorithms (CSE222, Winter 2014)</i>
Batch Size: 120	As a teaching assistant took tutorials on specific topics, evaluated lab work, homework assignments and examinations.
MAY-JULY 2013	Mentor MUC GROUP , IIIT - Delhi
MAY-JULY 2012	<i>Training Students in module development for OpenMRS</i>
Batch Size: 5	Trained students in developing OpenMRS modules. This required teaching various web development technologies such as Javascript, Spring, Hibernate, ExtJS and MySQL. Also explained MVC framework and helped setup and debug IDE, Apache servers, and OpenMRS systems. In due course of training created a self learn OpenMRS training website for students.

SELECTED PROJECTS

JUNE'13 - AUG'14	Interoperability model for health information systems and associated benefits challenges and approach, Masters Project
<i>Technologies</i>	<p><i>Spring MVC, Hibernate, Liquibase, Javascript, Java , Django, Excel</i></p> <p>HISP - INDIA had developed a SDMX-HD based module to provide interoperability between two open source health information systems OpenMRS and DHIS2. Objectives included finding problems in current implementation and deploying a working solution across the state. Post deployment I collected hospital data along with weather and pollution data of the same period. Used statistical tools to show correlation between various hospital indicators and external factors. link to source code</p>
AUG'12 - MAY'13	Improving Healthcare Efficiency using IT, B.Tech Project
<i>Technologies</i>	<i>Android, Python</i>

	<p>Worked with AHREF(Apollo Hospitals Educational and Research Foundation) to study and suggest improvement to the newly deployed hospital information system. We prepared a comprehensive report based on a three month empirical study. Based on the study we provided usability and feature requests for each department. We also extended ODK Sensors to collect data from health sensors on Android phones over WiFi. Since many sensors do not push data over WiFi directly we interfaced them with Rpi boards which in turn pushed data on WiFi.</p> <p> link to project resources</p>
JAN-APRIL 2014 <i>Technologies</i>	<p>pho-CO-play, <i>Windows Phone based game controller</i> <i>Windows Phone Mango SDK, C#</i></p> <p>Developed a windows phone application which allowed users to control PC using gestures over WiFi network.</p> <p> link to source code</p>
JAN-APRIL 2014 <i>Technologies</i>	<p>Financial, <i>Financial Analytics</i> <i>Google App Engine, Python (Django, BeautifulSoup), Excel, Highcharts</i></p> <p>Worked on numerous projects in finance domain and earned specialization in Finance during undergrad program.</p> <ul style="list-style-type: none"> • Valuing Companies and identifying Multi bagger Stocks: Collected financial data (income statement, balance sheet and cash flow) of all BSE listed companies and stocks from Yahoo Finance. Calculated financial ratios (Liquidity, Debt, Profitability, Cash Flow, Investment Valuation) and displayed content to users via a web application to make smarter investment decisions. • Valuing Real Options in Metro Railway Transit System: Study and analyze the real options and investment decisions undertaken by Delhi Metro Project and check the possibility of applying the same to similar projects in other metro cities like Bangalore, Kolkata etc. taking into account the delay and cost escalation that has occurred in these projects. <p> link to resources</p>
JAN-JULY 2012 <i>Technologies</i>	<p>CODECC, <i>Cloud Based Course Management System</i> <i>Google App Engine, Python, Web Technologies</i></p> <p>Designed and developed a cloud based course management system. The system was built on Google App Engine.</p> <p> link to source code</p>
AUG-DEC 2012 <i>Technologies</i>	<p>Blood Bank Module for live HIS system, <i>Module in OpenMRS</i> <i>Spring MVC, Hibernate, Liquibase, Javascript, Java</i></p> <p>Developed a blood bank management module in OpenMRS. The module records and maintains the accounts of all the blood units in the hospital along with their expiry dates. It also notifies user of their expiry. It is currently deployed across all the 20 district hospitals of Himachal Pradesh state in India.</p> <p> link to source code</p>

SCHOLARSHIPS AND CERTIFICATES

DECEMBER 2013	ICTD Emerging Researcher Scholarship to attend ICTD pre-conference symposium and ICTD main conference in Cape Town, South Africa.
MARCH 2013	Ranked Top 3% out of 224,160 in Graduate Aptitude Test Exam 2013 conducted by IIT- Bombay. Awarded GATE Scholarship based on result by AICTE, India.

OTHER INTERESTS

LEADERSHIP	Organized Flagship Event 'Techathlon' of Eysa, IIIT-Delhi Tech Fest. Elected Member of Hostel and Mess Committee, 2012 - 2013 , IIIT - Delhi.
OTHER HOBBIES	Swimming, Roller Skating, Traveling and Reading.