Lalit Agarwal

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Interests	Human-Computer Interaction, Usable Privacy

Technical Skills

Languages: Java, C++, PHP, JavaScript
Tools: Android Studio, Matlab, Selenium web-driver, HTML, Labview, MySQL

Education

Master of Mathematics, Computer Science   Sept '14 – Present
University of Waterloo, Waterloo, Canada   CGPA: 88.20/100

Bachelor of Technology, Information and Communication Technology   Jul '09 - May '13
Dhirubhai Ambani Institute of Information and Communication   CGPA: 8.55/10
Technology, Gandhinagar, India

Research Experience

Designing new authentication interfaces for Android
Mentor: Prof. Urs Hengartner, University of Waterloo, Canada   May '15 - Present
I am currently working on designing new interfaces for re-authenticating users on smartphones. The lock library will allow the Android developers to re-authenticate the users using their app.

Developing a selective ad-blocking tool
Mentor: Dr. Saurabh Panjwani, Bell Labs Research, India   Winter '13
Conducted a research study to address the concerns of Indian web users towards the content of on-line advertisements. The user perception of online ads was investigated through a user study which was then followed by developing a selective ad-blocking browser plugin.

MILLEE (Mobile and Immersive Learning for literacy in Emerging Economies)
Mentor: Prof. Matthew Kam, CMU, USA   May '10 – Dec '10
My role in the team was to play-test the language learning mobile games being developed. It involved conducting alpha and beta tests on these games to find out any potential bugs, design flaw and submitting formal reports so that they could be fixed.

Work Experience

Research Associate (Part-time), Technology Information, Forecasting and Assessment Council (TIFAC), India
Mentor: Dr. Prabhat Ranjan, Executive Director, TIFAC, India   Sep '13 - June '14
I worked on developing web-applications for use within the organization. I was also involved in maintaining organization's network performance by performing network monitoring and analysis, conducting security analysis of a few third-party applications being used in the organization.

Teaching Experience

Teaching Assistant, University of Waterloo, Canada
Course: CS234- Data Types and Structures, Spring '15
Course: CS136- Elementary Algorithm Design and Data Abstraction, Winter '15
Course: CS135- Designing Functional Programs, Fall '14
Course: CS458- Computer Security and Privacy, Winter '16, Spring '16

Selected Projects

Cloud Price Estimation Tool   Winter '15
Advisor: Prof. Bernard Wong, University of Waterloo, Canada   *Team Size: 3*
A utility tool which allows users to estimate the best pricing plan available for running their application on the cloud depending on the resource requirements of the application.

Crowd-sourcing system for multi-lingual plagiarism detection   Fall '14
Advisor: Prof. Edith Law, University of Waterloo, Canada   *Team Size: 2*
Developed a crowdsourcing system to overcome the limitations of machine translation by allowing users to identify plagiarized documents across languages. I was involved in developing the front-end interface of the platform using PHP, JavaScript and MySQL.

Ad-Filter Firefox Plugin   Winter '13
Advisor: Dr. Saurabh Panjwani, Bell Labs Research, India   *Team Size: 1*
Developed a modified version of the popular Ad-block plus plugin which blocks only embarrassing and sensitive on-line advertisements in contrast to blocking all on-line ads.

Ad-Extraction tool   Winter '13
Advisor: Dr. Saurabh Panjwani, Bell Labs Research, India   *Team Size: 1*
Developed a tool to identify the content of advertisements present in a given list of webpages. The tool extracts information of both image and textual ads from a given list of webpages.

NGO Information Management Suite
Advisor: Prof. Asim Banerjee, DA-IICT, India
Developed a web based information management system for an NGO for cataloguing their work, evaluating the NGO's performance and creating social   Winter '12
maps of the population in which the NGO operates. I was involved in developing   Team Size: 9
the server side interface which involved coding in PHP and JavaScript.

P2P File transfer system   Winter '11
Advisor: Prof. Sanjay Chaudhary, DA-IICT, India   *Team Size: 2*
Implemented a client-server system which allowed file sharing between clients in a network. The project was implement in C and the concepts of socket programming and shared memory were used.

Publications	**Do Not Embarrass: Re-Examining User Concerns for Online Tracking and Advertising**, ACM Symposium on Usable Privacy and Security (SOUPS), 2013 **Lalit Agarwal**, Nisheeth Shrivastava, Sharad Jaiswal, Saurabh Panjwani, Bell Labs Research, India
Relevant Coursework	Data Structures and Algorithms, Operating Systems, Introduction to Cryptography, Sensor Network Systems, Graph theory, System and Network Security, Network Protocols, Security Protocols, System Software, Software Engineering, Introduction to Artificial Intelligence, Human-in-the-Loop Systems, Cloud Computing and Software Defined Networking.
Past Activities	Graduate Student Ambassador, Computer Science Department, University of Waterloo Treasurer & Resource Manager, Electronic Hobby Centre, DA-IICT
Awards and Achievements	Mathematics Graduate Experience Award, University of Waterloo, Winter '15, Fall '14 Successfully completed Stanford University's course "Introduction to Cryptography" on Coursera. Ranked among the top 1% students all over India (total 1,000,000 students) in AIEEE-2009 and IIT-JEE-2009.

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