BABITA SINGH

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WORK EXPERIENCE

Tech Lead (Web Center Sites Team), ServiceMaster BSC, LLC, Memphis, TN   **Oct 2016 – Present**
- Implemented WebService with team for WCS platform to reduce content-publishing time from 6 hours to 5 mins
- Developed an ImageCrawler tool to generate Image-sitemap to keep track of images across domains to address 404s
- Developed Microsite's WCS/ATG platform to provide flexible CMS application to Business to minimize their IT dependency

IT Application Developer (eCommerce), ServiceMaster BSC, LLC, Memphis, TN   **Jul – Oct 2016**
- Enhanced corp sites to optimize them for Search Engine along with reducing site load time to achieve a higher page rank
- Assisted Architects to resolve environmental/architectural issues for the ServiceMaster ATG teams
- Assisted Architects in maintenance/enhancement of the Architecture for efficient performance of environments

INTERNSHIPS/ASSISTANTSHIPS EXPERIENCE

Research Assistant for Computer Network Security & Android Security at Syracuse University, NY   **Jan - May 2016**
- Analysed & exposed the most common Computer & Android system vulnerabilities and proposed patches for loopholes
- Developed & customized Android x86 Image to test Android Labs for educational purposes using AOSP project
- Developed Android Security Labs(attack recreation and solution) for exposed vulnerabilities to better learn the threats

Software Developer Intern (eCommerce), Service Master Global Holdings Inc, Memphis, TN   **Jun – Aug 2015**
- Maintained and enhanced corp sites on ATG/BCC platform to improve the performance and customer experience
- Migrated corp sites to ATG web commerce platform to separate code and content for effective content management
- Designed/Developed a web crawler to find all 404 broken links to speed up the site migration projects, used across teams

EDUCATION

Stanford University, Stanford Online (https://lagunita.stanford.edu/)
- Mining Massive Datasets (Computer Science – MMDS)   **Jul 2017 – present**
- Algorithms Design & Analysis   **Jun 2017 – present**

Syracuse University, Syracuse, NY   **Aug 2014 - May 2016**
- Master of Science (MS) in Computer Engineering (CE Software Track)   GPA:3.23/4.0

Rajiv Gandhi Technological University, India   **Oct 2009 - Jun 2013**
- Bachelor of Engineering (BE) in Computer Science & Engineering (CSE)   GPA: 3.5/4.0

TECHNICAL SKILLS

Languages:	Java, C++, C#, C
Web Technologies:	HTML 5, CSS 3, REST & SOAP APIs, JavaScript, JSON, JQuery, XML, Ajax, JSP, JSTL
Databases:	SQL
Web Servers:	JBoss, Web Logic, Xampp (Apache HTTP Server + PHP + MySQL), Apache Tomcat
Frameworks:	J2EE, .Net Framework, Hadoop, VMware vSphere Client
Application Software:	ATG Web Commerce Workbench, ATG Business Control Center, SVN, Endeca Engine, Eclipse, Visual Studio 2013/15, Android Studio, PuTTY, SQLDeveloper, GitHub
Algorithms & Data Structures:	Dynamic/Greedy/Linear Programming, Matrix, Trees/Tries & Graphs, Hashing, Recursion & Induction, Strings/Arrays/Bit Manipulation, Shortest Path Algos
Others:	Advanced System Programming, Object Oriented Design, Design Patterns, Android Programming, Computer Security, Cloud Computing

CERTIFICATIONS / AWARDS / RECOGNITION

Certifications – IBM RAD, IBM TIVOLI, IBM DB2, Ethical Hacking and Cyber Security
Awards & Recognition – IBM Blue Scholar, Secured best performance for "Robotic-Race", 3rd position for "Robotic—Pick & Place"

PROJECTS

Performance analysis of various Scientific and Data Driven Algorithms using MapReduce on cloud, JAVA   **Apr 2016**
- Analyzed performance of various algorithms as a standalone MapReduce application and MapReduce application on cloud
- Implemented **Page Rank**, **Graph Analysis (BFS)**, **Document Search, Stemming Algorithms** using MapReduce

Technologies: NLP, Hadoop MapReduce, Amazon AWS, S3, Algorithms and their implementation in MapReduce

Smart Gym Trainer Android Application, JAVA   **Mar – Apr 2015**
- Developed an android application with team, which provides the individual a brief guide to plan their workout and diet
- Implemented YouTube's live streaming feature and other Google APIs in multithreaded environment

Technologies: Java, Android 4.4(KitKat API 19 onwards), HTML, JSON, Google API (YouTube), Graphs, Multi-threading, Async task

Android Repackaging Attack, JAVA   **Feb – Mar 2016**
- Performed Android Repackaging attack to exploit Google's digital signature authentication vulnerability
- Decompiled a random Android app, injected malicious code, added permissions, signed, recompiled to apk
- Reverse Engineered the development process and breached the security using system interface

Technologies: Reverse engineered apk, ndk build, self-signed certification, keytool-jarsigner, adb, smali, and shell Scripting

Information Extraction from GitHub, JAVA   **Feb – Mar 2016**
- Developed an Android app that extracts information from GH API to display all issues for a specific repository
- Parsed nested Json to get all possible comments and conversation on a particular issue
- Established http real time connection in multi-threaded environment and Implemented OO approach to make calls to libs

Technologies: Android Studio, API 22, GitHub API, GitHub Repositories, HTTP Connection Protocols, Json, Multi-threading, Async

Distributed Code Management Application, C++   **Mar – Apr 2015**
- Developed a GUI based application that provides code management facility across teams/projects on a distributed system
- Implemented windows socket facility to bind application's port and machine's IP address with the distant remote machine
- Communication achieved via sending messages over sockets which were modelled after HTTP standards

Technologies: C++ 11.0, WPF, Win-Socket, Multi-threading, dynamic link libraries, Object Oriented functionalities

Distributed XML Query Processor, C++   **Feb. – Mar 2015**
- Developed an XML parsing application that reads XML page, query XML content & supports modification to the page
- Implemented XML parsing facility to modify the web content of the generated page via queries
- Query implementation achieved via creating an XML Document object which compliant various design patterns

Technologies: C++ 11.0, Xml Parsing, Object Oriented functionalities, Design patterns, System Design

Contiguous block board game, C#   **Apr 2016**
- Developed a console board game that generates colour coordinated matching pieces in adjacent contiguous blocks. Player can destroy the largest contiguous block of a type and system would replace the destroyed block and rearranges the board

Technologies: C#, Algorithms and Data Structures

VOLUNTEER EXPERIENCE

Tutor
- Empowered financially challenged children with communication skill.
- Imparted introductory knowledge of how things/world work for motivating them towards learning and exploring new fields without any dependence on outside factors

Health Camp Manager
- Worked with medical staff for organizing routine health check-up camps in rural areas to provide health care services to those deprived of health care centers in their areas
- Assisted health care teams in providing free health check-ups to those who were unable to visit health centers because of imposed financial conditions