AKASH SINGH

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ACADEMIC QUALIFICATION

McGill University   **September 2016 – May 2018**
Master of Science: Computer Science

Inderprastha Engineering College   **August 2010 – May 2014**
Bachelor of Technology: Computer Science and Engineering (75.8%)

TECHNICAL SKILLS

- Programming Language: Aspect-oriented programming(CORE, RAM models), Java, C, Python, MATLAB, JavaScript, MongoDB, NoSQL, SQL, SAP ABAP, Scala (Play framework)
- Web technologies: J2EE (Hibernate framework), AngularJS, Bootstrap framework, NodeJS, Neo4J
- Knowledge Domain: Insurance and Health care

WORK EXPERIENCE

Cognizant Technology Solutions, Chennai (June 2014 – July 2016)
Designation: Programmer Analyst
Technology used: Java, Web Services and APIs
Domain: Insurance and Health Care
Tools created:
Variable xTractor: extract variables from Calligo script requirement documents using pattern recognition algorithms
xDashboard: thick client application built using web-services for safer batch transactions
QCidRoaster: To track all the Change Requests (CRs)
XMLvalidator: For upstream XML validation

ACADEMIC PROJECTS

Title: Reverse Engineering of WSO2 IoTServer (September 2016 – December 2016) [McGill University]
The study employs the classic reverse-engineering process to gain an architectural overview of the WSO2 IoTServer. We begin by analyzing the static components of the project and expand towards the dynamic behavior of the system. We identify the most salient architectural decisions of the system and critically analyze its components. It also serves the important purpose of producing a complete architectural review of such systems related to the IoT domain. Thus, imparting valuable & important knowledge with respect to (software) systems for IoT, to its greater audience.

Title: Aggregation in Phylo (September 2016 – December 2016) [McGill University]
Multiple sequence alignment (MSA) – three or more related biological sequences -- are used to represent protein sequences whose goal is to reveal sequence similarity by aligning together nucleotides (or amino acids) derived from a common ancestor or having an analogous role. These MSAs are produced from the original protein sequence, therefore after alignment, aggregation is required to assemble them back in the original protein to generate the complete sequence. Aggregation of these protein sequences is an NP-complete problem which requires application of machine learning and study of alignment algorithms like MUSCLE, T-Coffee, PRANK, etc.

Title: Concern-Oriented Reuse (CORE) for Hibernate framework (September 2016 – December 2016) [McGill University]
Prominent idea behind this is to create a Concern oriented reusable (CORE) file by weaving Reusable Aspect Models (RAM) for Hibernate framework. If you use this CORE file to create sequence diagrams for your problem statement in Hibernate, it will automatically generate the source code for you, provided that the sequence diagrams are drawn correctly and as per UML2.0 standards.

Title: Training and Placement Portal of IPEC (August 2012 – March 2013) [IPEC]
Team size: 6
- Developed features of the Training and Placement module as per the design document, its interaction with other modules and its integration with other automations already deployed in college. My major contribution in the development of server-side coding for this portal using the J2EE (MVC3 architecture and Hibernate ORM framework). Stack used: JSP, Servlets, Net Beans as IDE and MySQL for database.

PAPER PRESENTATION
IEEE, Debit/ATM card security based on chaos function and QR code (April 2014)
ISSN: 978-1-4799-3357-0
Place: Adhiparasakthi Engineering College, Chennai, Tamil Nadu
JOURNAL PAPER
Title: Chaos based Cryptosystem (June 2014)
Journal: IJEDR
ISSN: 2321-9939

INTERNSHIPS/TRAINING
Cognizant Technology Solutions, Chennai (June 2014 – August 2014)
- Issue and Complaint Management System for raising tickets and tracking the requests till completion with automation of status updates and priority setting. Implemented using advanced Java concepts and MySQL. Acted as the lead developer for this project and also contributing in all the other phases of SDLC.

Sopra India Pvt. Ltd., Delhi (August 2012 – March 2013)
- A team of top 6 students from IPEC and new recruits from Sopra India Pvt. Ltd collaborating in the same project: Student Information Management System (SIMS) going through different phases of Agile model.

Sahara Q – shop, Mumbai (June 2013 – July 2013)
- Created Transaction codes (T-codes) using SAP ABAP for SAP SD team for data analysis of retail business.

CERTIFICATIONS
- Level 1 ethical hacking certified, November 2012.
- Secured an 'A' in Advanced Java Diploma at Pacific Networks, Mumbai in July, 2012.
- Cognizant Certified Professional in C and MySQL, September 2014.
- Cognizant Certified Professional in xPression suite, November 2015.

AWARDS AND ACHIEVEMENTS
Scholastic Achievements
- Digital Superstar of Cognizant in 2015.
- Received Gold Award in Project Management Strategy organized in Cognizant, December 2014.
- Highest Scorer from IPEC in ACM coding contest, September 2012.
- Branch topper in B.Tech of IPEC in B-Tech first year, July 2010 - June 2011.
- Highest AMCAT scores in IPEC, (National Percentiles) [id: 10019851223103] with an average percentile of 98, January 2014.

EXTRACURRCIUALR ACTIVITIES
- Lead blogger in Cognizant Academy, June - August 2014.
- Team Lead in organizing the event "Blind Coding" for ACM Tech-Sennight, September 2013.
- Member of the Association for Computing Machinery (ACM) to know about the current innovations. ACM is the largest professional association in the computing area. I enrolled in most of the seminars organized by them on Digital computing, August 2012 - July 2013.