Phone: 443-824-9748 4824 Grenville Square, Baltimore, MD 21227 mat7@umbc.edu

## **Education**

University of Maryland Baltimore County, MD Aug'2013 – May'2015 (Expected)

Master of Science in Computer Science GPA 3.38

M.I.T College of Engineering, Pune University, India

Aug'2007 – May'2011

Bachelor of Engineering, Computer Science GPA 3.66

**Relevant Courses** 

Design and Analysis of Algorithms
 Artificial Intelligence
 Natural Language Processing

■ Machine Learning ■ Computer Architecture ■ Semantic Web

**Skills** 

Languages : C++, JAVA, C, Python, R, LISP, Haskell, Shell Script

Web Technologies : HTML5, CSS3, PHP, JQuery, Javascript, SOAP, WSDL, XML

<u>Database</u> : Oracle 9i/10g, MySql <u>Application Servers</u> : WebSphere, Apache

<u>Middletier Services</u> : Service Oriented Architecture(SOA), Java Web Services

Revision Control System : SVN, Git

<u>Data Analysis Tools</u> : Weka, LibSVM, Hadoop and Map Reduce <u>Operating Systems</u> : Linux – Fedora, Ubuntu, Microsoft Windows

<u>Functional Domains</u>: Product Lifecycle Management(PLM)

<u>Applications/Tools</u> : Teamcenter(Siemens PLM Product), Catia(Dassault Systemes design product),

Enovia(Dassault Systemes PLM product), Microsoft Visual Studio, Eclipse, RStudio

# **Work Experience**

### Software Developer, Geometric Limited, India

Aug'2011 - Aug'2013

## **Projects at Geometric Limited**

■ Teamcenter PLM – Delmia PLM Manufacturing Integration (Oct'2011-Feb'2012)

- Implementation of Manufacturing Process Planner for Nissan (Automobile Industry Japan) (Mar'2012-Dec'2012)
- SOA implementation for Teamcenter and Enovia Integration for Sifang(Locomtive Industry China) (Jan'2013-Aug'2013)

#### My Role

- Teamcenter PLM product Development Server Side (C++) and Client Side (Java)
- Middleware Design to handle parallel requests using JAXB, providing interaction between two different PLM products.
- SOA wrapper APIs implementation for searching/updating/creation of objects within a large data tree structure.
- Requirement Gathering via direct customer interaction
- Creation of POCs (Proof of Concepts) and explaining to the customer
- Creating Project Plan and holding discussions with project members from time to time

## **Graduate Teaching Assistant, UMBC Computer Science Department**

Aug'2013 – Aug'2013

- Conducting Lab Sessions- Python/Principles of Programming Languages
- Creating and grading homework assignment

#### **Academic Projects**

# Crowd Sourced Reinforcement Learning - Crowd Sourced Perception, Reinforcement Learning (RL), C++, Java

- Analysis of policy learnt by RL when human query is made for classification when the supervised learner is uncertain
- As the classifier gets better, Crowd sourced RL's policy learnt is used to make lesser human queries

### Predicting Bad Edits to Wikipedia pages – Weka, LibSVM, C++, Java

- Use of supervised learning to predict whether a particular Wiki edit is good or bad (vandalized).
- Comparison of different classifiers like Naïve Bayes, Artificial Neural Networks, Support Vector Machines, K Nearest Neighbors, Random forest based on their prediction performance

### Encryption and Watermarking of relational data on Networking Sites - HTML/CSS/JavaScript

- Combined encryption(Elliptic Curve Cryptography using Finite Field) and watermarking of digital data on the client side
- The paper "Watermarking Social Networking Relational Data using Non-numeric Attribute" presents a novel approach of watermarking (process of embedding information in the original content
- Algorithms for insertion and detection of watermark are the key features of this paper. International Journal of Computer Science and Information Security (http://sites.google.com/site/ijcsis/vol-9-no-4-apr-2011)

# **Mentorship Management System - C++, Oracle**

- Analysis and reduction of time involved in searching, creation, updating of database rows
- Optimization of SQL queries for the above activities
- Use of different data structures for holding objects Object oriented programming
- Analysis of efficiency of different class structures

#### PUBLICATIONS/AWARDS AND PROFESSIONAL RECOGNITION

- The research paper "Watermarking Social Networking Relational Data using Non-numeric Attribute" was Awarded IJCSIS Best Paper Award: Volume 9 No. 4 April 2011.
- Kudoz Award for the most innovative idea in Geometric Limited(Middletier JAXB implementation)
- Best Trainee Award at Geometric Limited
- Highest Marks Scored in "Advanced Computer Architecture and Computing" in final semester of the undergraduate course