Ashwinkumar Ganesan

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Summary

I am a PhD Student at the University Of Maryland, Baltimore County. My research focuses on Artificial Intelligence, Machine Learning & Data Analytics. I work with Prof. Tim Oates from the Cognition, Robotics, AI & Learning (CORAL) lab.

Education

Ph.D. in Computer Science, University of Maryland, Baltimore County, Fall 2017 (expected)
CGPA – 3.75 / 4.0; Advisor – Dr. Tim Oates

Masters of Science in Computer Science, University of Maryland, Baltimore County, August 2012
CGPA – 3.71 / 4.0; Advisor – Dr. Tim Oates
Thesis – *Calculating Representativeness of Geographic Sites Across the World* Thesis Committee – Dr. Tim Oates, Tim Finin, Matt Schmill (UMBC)

The aim of this research is to understand, how a study or a set of studies of specific geographic areas is representative of other areas of the world. It aims to answer a set of questions which include the definition of representativeness of a geographical site and how the representativeness can be computed.

Bachelor of Engineering in Computer Science and Engineering, University of Pune, June 2007
GPA – 3.8 / 4.0

Publications

Conferences
Ashwinkumar Ganesan, Kiante Brantley, Shimei Pan, Jian Chen (2015). LDAExplore: Visualizing Topic Models Generated Using Latent Dirichlet Allocation. Intelligent User Interfaces (IUI) - Textvis Workshop 2015

Journals
Riley, David R, Sieber, Karsten B, Robinson, Kelly M, White, James Robert, **Ganesan, Ashwinkumar**, Nourbakhsh, Syrus & Hotopp, Julie C Dunning (2013). Bacteria-human somatic cell lateral gene transfer is enriched in cancer samples. PLoS computational biology, 9, e1003107.

Masters Thesis
Ganesan, Ashwinkumar (2012). Calculating Representativeness of Geographic Sites Across the World. University of Maryland, Baltimore County (UMBC) - Master's Thesis.

Posters
Ashwinkumar Ganesan. Calculating Representativeness of Geographic Sites Across the World. 35th Graduate Research Conference UMBC (CSEE winner).

Skills

Platforms: Linux, Windows.
Languages & Tools: Python, C, C++ (academic work), Java, Eclipse, Unix Shell Scripting, MongoDB.

Work History

Apkudo LLC (Baltimore, MD)
Embedded Software Engineer (September 2012 – August 2014)
- Worked on Android operating system customization (and android security) and have experience with various versions of Android (2.3 Gingerbread to 4.1.2 Jellybean).
- Became a team Coordinator tasked with customer interfacing, implementing agile methodology for the project and designing requirements after from my software engineering tasks.

Symantec Corporation (Columbia, MD)
Software Development Intern (June 2011 – August 2011)
- Designed and developed Test Automation Suite for Symantecs security product i.e. Symantec Critical System Protection (SCSP). Worked on network security functionality of the product.
- Achieved complete automation of network tests on different operating systems and flavours including Redhat, Windows, HP-UX and Solaris.

Niyuj Enterprise Software Solutions (Pune, India)
Senior Member of Technical Staff (November 2009 – August 2010)
- Worked on testing of Symantec Security product Critical System Protection including functional and security testing. Gained experience in server administration functions of the various operating systems and Test Execution Cycle for product releases.
- Exposure to tools such as MetaSploit (for security testing) and Aptest (QA and test case management).

Tata Consultancy Services (Mumbai, India)
Assistant Systems Engineer (Sept. 2007 – Oct. 2009)
- Designed requirements & test cases, performed benchmarking, load testing, stress testing to check application performance. Designed and implemented solutions to correct enterprise application performance.
- Worked on multiple technologies including HP LoadRunner, HP Performance & Quality Center, Oracle Database, MySQL, Apache Tomcat, HTTP Server and Siebel products. I was a trainer for HP LoadRunner & Performance Testing.

Academic Positions

Mid Altantic Student Colloquium - Program Committee Member (2015)
UMBC Graduate Students Association (GSA) - Senator (2014 - present)
UMBC Dept. Of Computer Science & Electrical Engg. - Teaching Assistant (2011, 2012)
Teaching Assistant (TA) for the following graduate courses - Introduction to Artificial Intelligence, Introduction to Artificial Neural Networks, Introduction to Database Management Systems.

Academic Projects

Globe
GLOBE is a global collaboration engine for studying Land Change Science. I was tasked to calculate representativeness of a region in comparison to other regions for the world for a set of defined attributes.

Google AI Challenge 2010 (Planet Wars)
This project was implementing a game bot for the Google AI Challenge 2010 (Planet wars) using Game Trees and reinforcement learning techniques. I further improvised upon the design by consider multi-action adversaries in the game.

Building Spanning Trees Using Gossip Protocol
The work is to analyze the gossip protocol for constructing a spanning tree for different network structures such as cliques, line and circles (with diameters).

Academic Activities

- Started the undergraduate college security group and taught sessions on security programming and various attacks.
- Part of the college Linux-Users group and taught students Linux installation & programming.
- Teaching Assistant (TA) for Operating Systems, Principles of Compiler Design and C Programming courses at my undergraduate college.
- Won the Best Systems Project Consolation Prize in B.E Project competition Intechxication 2007 held at MIT, Pune.
- Part of organizing committee for the international competition ROBOCON (ABU) in the year 2005 and 2007.
- Part of the technical group taking part in ROBOCON 2006 and worked on programming for controllers.