Bharath Venkatesh

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bharath.venkatesh@student.kuleuven.be | bhatturam.github.io | 8th May 1988 | INDIAN |

EDUCATION

KU LEUVEN
Advanced Master in Artificial Intelligence
2015-2016
Magna cum laude,Per: 78.67

IISC BANGALORE
M.Sc(engg) Computer Systems
2010-2013
GPA: 6.2/8

NIT TRICHY
B.Tech Mechanical Engineering
2006-2010
GPA: 7.87/10

COURSEWORK

GRADUATE
Machine Learning
Data Mining
Programming for Big Data (18/20)
Computer Vision (17/20)
Uncertainty in AI
Robotics (19/20)
Artificial Neural Networks
Support Vector Machines
Artificial Intelligence Fundamentals
Cognitive Science
High Performance Computing (7/8)
TCP/IP Networking (7/8)
Probability and Statistics
Linear Algebra

SKILLS

PROGRAMMING
Languages
Java • C++ • C • PERL
MATLAB • SQL • Javascript
R • Python • PHP • PROLOG
Frameworks:
Android • OpenCV • Arduino •
Scikit-learn • WEKA • GNUPLOT
Parallel Computing
• MapReduce • CUDA • OpenMP • MPI

WEB AND GRAPHIC DESIGN
Photoshop • CSS (basics)

EXPERIENCE

SAP Research Associate - Data Science
July 2013 – July 2015 | Bangalore, India
I was a junior scientist at a next-generation applications team, which reported directly to the CTO at Palo Alto CA. My primary role was to identify relevant literature and make proof-of-concept implementations. I worked on various Data Mining and Analytics projects in the domains of Bioinformatics, Health and Internet of Things. I also contributed to software architecture and development as a secondary activity

PROJECTS

- (SAP) Contributed to user profile building and worked on the implementation of a proof-of-concept system to recommend users products and services from local businesses based on user data captured by a smartphone and ratings from other users (Collaborative Filtering).
- (SAP) Contributed to a Bioinformatics research project aimed at graph-based ranking (PageRank) of biological pathways based on how much they are affected under cancerous states. Implemented an R package for this that is available at GitHub
- (SAP) Developed an extensible tool in Java to generate synthetic data to benchmark Next-Generation Sequencing(NGS) Alignment and Variant Calling Algorithms.
- (SAP) Conceived, designed, architected end-to-end and lead implementation efforts for a low cost system to track the height and weight of children in rural India.
- (IISc) an efficient algorithm for the infrastructure level detection of Structured Peer-to-Peer Botnets based on graph clustering as a part of my Masters Thesis at the Information Security Lab at IISc.
- (IISc) Developed graffy, a high performance graph library in C++,The library is available at GitHub and has been used in various projects in social network analysis at the Information Security Lab at IISc.
- (KUL) Implemented several machine learning algorithms for large scale data for the programming for big data course. This included stream classifiers (VFDT), approximate nearest neighbor search (LSH) and fast counting and sampling algorithms.

PUBLICATIONS

Journal
Venkatesh, B., Choudhury, S. H., Nagaraja, S., & Balakrishnan, N. (2015). BotSpot: fast graph based identification of structured P2P bots. Journal of Computer Virology and Hacking Techniques 11 (4), 247-261

Conference
Ravi, S., Balakrishnan, N. & Venkatesh, B. (2013). Behavior-based Malware Analysis using Profile Hidden Markov Models. Security and Cryptography (SECRYPT), 2013 International Conference on, 1-12

Preprint
Patil, Shailesh S., Bharath Venkatesh, and Randeep Singh. "From Differentiated Genes to Affected Pathways." preprint/bioRxiv (2016): 038901.