Rishabh Monga

rmonga@umail.iu.edu
415-400-6783

3209 E 10th Street, Apt D6,
Bloomington IN 47408

GitHub: https://github.com/rishabhmonga/
LinkedIn: https://www.linkedin.com/in/rishabh-monga-3b448b1a

Education

Indiana university, Bloomington, IN Aug 2016 (present)
Masters of Science in Computer Science, **GPA: 3.7**
Coursework: Computer Vision, Machine Learning for Signal Processing, Introduction to Statistics, Algorithms Design and Analysis, Applied Machine Learning, Advanced Operating Systems

Birla Institute of Technology, Mesra, Ranchi (India) Aug 2008 - Apr 2012
Bachelor of Engineering in Computer Science

Experience

Software Engineer (R&D), *Terracotta*
IBOB, SoftwareAG Pvt Ltd (Bangalore, India) Jul 2014 - Jun 2016

Software Engineer
Cognizant Technologies Solution (Kolkata, India) Feb 2013 – Nov 2013

Work Experience

EhCache **Terracotta, SoftwareAG**

- Core committer of the open source project Ehcache3. Contributions to the project include implementing cache operations like put, put-if-absent, replace and the like, Ehcache3 runtime configuration and resizing cache resources (heap, offheap and diskstore), cache load testing and various other enhancements and bug fixes.
- Worked independently to design and develop the cache event service for EhCache3. This involved solving a multi-producer multi-consumer problem at a distributed system scale using an in-house threading service and enhancing user facing APIs to support synchronous and asynchronous event handling.

SoftwareAG Platform Manager Plugin **Terracotta, SoftwareAG**

- Developer of feature additions to Terracotta Server. My contributions to the project involved resolving split-brain scenarios and server-client communication channel in a distributed system, implementing various tweaks to terracotta configuration, security fixes like disabling SSLv2 and rc4 ciphers.
- Independently designed and developed a Terracotta - Command Central Integration. This project was an initiative to create a plugin that would allow users to visually create, monitor and modify a terracotta server array.

Dockerization of TSA **Terracotta, SoftwareAG**

- Teamed up with two other developers during Terracotta's 2015 'Hackathon' to create docker images of terracotta server array and client.
- Contribution to this project was clustering the dockerized TSA buy initializing two docker images of terracotta server and have them share a network stack so the servers could communicate and form a cluster.
- **Technologies:** Docker, shell and batch scripts

Academic Projects

Indiana University, Bloomington, Indiana

- Implemented an n-ary Decision Tree of variable depth by optimizing information gain and entropy. Implemented performance metrics like confusion matrix, precision, recall and ROC curve comparing various depth trees.
  Technologies: NumPy, SciPy, Pandas, Orange, WEKA
- Implemented Adaboost and Bagging for a decision tree as an application for ensemble methods to improve learning performance. This was implemented using the UCI Mushroom data set. Confusion Matrix was implemented as a performance matrix.
  Technologies: NumPy, Pandas, WEKA

Birla Institute of Technology, Mesra, India

- Developed an "Artificial Intelligence programming platform" - a framework that helps students program agents to perform tasks independently while working towards a collective goal.
- Developed "Project Wings" – an online portal for sharing of study material at an Inter-College level using LAMP framework

Honors and Awards

- Won the Terracotta's 2015 'Hackathon' for dockerization of TSA
- Spot Award for conducting open source seminar to train entry-level developers
- Appreciation Award for contributions in Performance Tuning of cache operations for all tiers of EhCache3.