Harsh Pankaj Panchal

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY *Aug 2012 – May 2013*
Master of Engineering in Computer Science, **GPA: 3.93/4.00**

University of Mumbai, **Sardar Patel Institute of Technology**, Mumbai, India *Jun 2008 – May 2012*
Bachelor of Engineering in Computer Science, **GPA: 3.98 /4.00**

TECHNICAL SKILLS

Languages:
Scala, Go, PHP, Python, Java, C, C++
Tools:
Git, Intellij, Visual Studio, Vim, XEmacs
Databases:
PostgresSQL, Oracle SQL, DynamoDB, Elasticsearch

WORK EXPERIENCE

Software Engineer, Thumbtack Inc. (San Francisco, CA) *Nov 2015 - Present*

- **Marketplace matching and infrastructure**
  - Working on improving the retrieval and ranking of the pros shown to the customers when they search Thumbtack for a particular request category.
  - Improvements include adding click signals for better ranking and designing the system to allow new pros to ramp up on the rankings in an organic way i.e. addressing the marketplace coldstart problem.

- **Modeling Platform**
  - Built Thumbtack's machine learning platform to enable various models to be trained, evaluated, served and monitored as they powered some of Thumbtack's core product experiences.
  - Models were trained using SparkML and Scala spark jobs on Google Compute Platform's Dataproc clusters while they were served using our in-house service hosted on Amazon's machines.

Member of Technical Staff, Oracle America Inc. (Redwood Shores, CA) *July 2013 – Nov 2015*

- Working with Oracle's *Automatic Storage Management* (ASM), which is a volume manager and file system for Oracle's database files, Oracle Exadata storage and Oracle Real Application Clusters.

- **Managing disk-group attributes and attribute directory**
  - Fixed latent issues and improved functionality of disk-group attributes like storage.type, allocation unit size, compatible.asm and compatible.rdbms which are properties that are used to fine-tune the disk-group capabilities.
  - Extended compatible.asm and compatible.rdbms to include information about different patch-set-units.

- **Understanding version compatibility between ASM and RDBMS**
  - Developed framework to identify compatibility between different versions of ASM and RDBMS.
  - The compatibility between ASM and RDBMS versions was computed dynamically taking into account the patches applied on both the softwares.

PROJECT EXPERIENCE

Distributed Key Value Store *Jan 2013 – May 2013*
- Implemented a Key Value Store in Java with Virtual Server Clusters having 1-resilience.
- Cluster membership was managed in Amazon SimpleDB
- Updates were shared between clusters using Anti-Entropy.

Evaluate page ranks from a web graph *Jan 2013 – May 2013*
- Evaluated the page rank of each page given a web graph of 680,000 nodes and 7 million edges using MapReduce.
- Computed page rank using simple and block computations and compared the efficiency of both.
- Project was implemented in Java and utilized Amazon Elastic MapReduce Web Services.

RELEVANT COURSES

Databases, Machine Learning, Natural Language Processing, Operating Systems, Algorithms, Information Retrieval, Large Scale Information Systems, Distributed Computing.