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OBJECTIVE

Seeking summer internship in an organization that would help me utilize my current skills and provide me an environment to hone and expand them, thereby leading to mutual growth.

EDUCATION

Master of Science – Computer Science Expected Graduation-Dec, 2014
University of Minnesota - Twin Cities, Minneapolis, MN
Courses: Introduction to Data Mining, Introduction to Recommender Systems, Statistical Analysis
CGPA: 3.53/4.00

Bachelor of Technology – Information Technology Jul, 2006 – Jun, 2010
Indian Institute of Information Technology, Allahabad
CGPA: 8.8/10.0

SKILLS

Languages – C, C++, Python, R
Frameworks/APIs/Libraries – STL, pandas, scikit-learn, NLTK, Django, Mechanize, BeautifulSoup, OpenSocial
Others – Weka, numpy, IPython, Git, Selenium, Bash, Vim

RESEARCH EXPERIENCE

Working in **Prof. Vipin Kumar's** lab on clustering of time series. This work focuses on finding and evaluating methods for time series clustering. There have been a lot of discussions in the related community about "meaningful" clustering of time series. We try to find out how we can find the subsequences in time series to cluster while keeping our clustering meaningful. Time series clustering has many applications in domains like financial markets, healthcare, earth sciences, etc.

WORK EXPERIENCE

Senior Member Technical Staff (Software Developer 3) Jan, 2013 – Jul, 2013 - Oracle India Pvt. Ltd. Bangalore
Member Technical Staff (Software Developer 2) Jul, 2010 – Dec, 2012 - Oracle India Pvt. Ltd. Bangalore

- Started and completed **Patch Build Automation project**, used to automate manual patch build process. Whole project was written in Python, keeping in mind the end-to-end automation right from bug fixing team to support team.
- Involved in patch/PSU (Patch Set Update)/CPU (Critical Patch Update)/bundle build, release and associated QA activities, for Oracle Enterprise Manager. PSU are cumulative patches released quarterly having both security and priority fixes.
- Started and completed **Patch Console Test Automation project**, used to test the compatibility of patch application using Oracle Enterprise Manager console. Several patch fail this test due to post patch scripts and variety of other reasons. Project was written in Python using Selenium.
- Involved in periodic patchability projects, which consists of checking the patch functionality and integrity on yet to be released versions of Oracle Enterprise Manager.
- Involved in mentoring and supporting several people inside and outside the team to get them started on patch build process for Oracle Enterprise Manager. Also remained as point of contact for patch automation support for Oracle Enterprise Manager Fix Delivery team.

PROJECTS

Movie Rating Prediction using Twitter's Public Feed (Python, NLTK)
This script lets user find rating for a movie (out of 5) based on latest 100 public tweets related to that movie. **Naive Bayes Classifier** was trained using training set from Stanford AI lab's "Large Movie Review Dataset". **Sentiment**

analysis of each tweet is done after extracting features from it and feeding it to the classifier, hence classifying it as positive or negative.

Implemented various Recommender Systems using Lenskit Recommender Framework (Java)
As part of "Introduction to Recommender Systems" course, **user-user** collaborative filtering, **item-item** collaborative filtering and **SVD** recommender were implemented using Lenskit along with offline evaluation measures like RMSE and nDCG.

Semantic Question Answering System using Text and Image based retrieval (C++)
A basic search engine which takes query as text and returns text and image as result. Aim was to get the most relevant information from the repository based on the user query. Stop words removal, Stemming, ***Vector Space Model, K-means algorithm***, Term document matrix, etc. was used.

Web Application Development using OpenSocial API (C++)
This tool lets user create applications for Orkut, MySpace and Hi5 without writing any piece of code. Backend was supported by ***OpenSocial API***. User enters data in a GUI and based on the selection one of 5 different kinds of applications gets generated with users input parameters.

Query Processing in Distributed Database (Java)
The project aims at executing the client's request (query) in a distributed environment focusing on concurrent execution. ***RMI (Remote Method Invocation)*** was used in this project. Main goals were reducing the cost of query execution and reducing the message passing cost in distributed database.

MLE Implementation in Distributed Environment (C++)
Distributed MLE (Maximum Likelihood Estimation, Kalman Filter) algorithm was implemented in a distributed environment using MPI (Message Passing Interface, MPICH2) and running time was compared with MLE implementation on a single node. Kalman Filter algorithm was implemented to correctly estimate natural nodes position in a wireless sensor network.

ACHIEVEMENTS AND ACTIVITIES

Secured 8th place in **ACM International Collegiate Programming Contest's** Preliminary round of Asia Region, Kanpur Site in the year 2008.

Received **merit scholarship** in Bachelor of Technology, first semester, for securing 5th position among 200 students.

Submitted over 120 successful solutions to programming problems on **UVA online judge** (link - http://uva.onlinejudge.org, username - theharshest).

Over **1k reputation** on **Stackoverflow** with consistent contribution on Python and C/C++ related questions (username - theharshest).

Participated in more than 25 **SRMs on TopCoder** with highest rating of 918 (username - theharshest).

Participated in few **Kaggle** competitions and getting involved in more of them using **scikit-learn** and other Python libraries (username - theharshest).

Regular **Quora** user with contribution of 100+ Q&As and 450+ following along with an offer to act as **Quora reviewer**.

Maintain a tech blog - **Harsh Tech Talk** (http://harshtechtalk.com).

Won first prize in "Coders Arena", a coding competition, in "Technovation" – annual fest of Institute of Engineering and Rural Technology (IERT), Allahabad.

Won first and second prize in "Magnum Opus", the software exhibition contest of "Effervescence" (Annual Technical and Cultural festival of IIIT Allahabad) in the year 2008 and 2009, respectively.

Please refer to LinkedIn profile for recommendations.