Vardhan K

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OBJECTIVE

Result-oriented, dedicated and motivated engineering graduate seeking to learn and apply my skills in a challenging position for organizational benefit.

EDUCATION

- **University of Illinois at Chicago - May'16 (expected)**
  Master of Science in Computer Science (GPA: 3.57/4.0)
- **National Institute of Technology - May'14**
  Bachelor of Technology in Computer Science (GPA: 3.7/4.0)

TECHNOLOGIES

Programming Languages	: Java, Python,C++
Databases	: MySQL, MS SQL, MongoDB
Web Technologies	: HTML, JavaScript, CSS, PHP, D3.js
Big Data Technologies	: Apache Hadoop, Spark

EXPERIENCE

Graduate Assistant at UIC (May 2015 – Present)

- Sped up data analysis 30% by communicating with the department and identified the need for a reporting system. Used agile software development methodology in defining the problem requirements and development iterations.
  Tools: Java, MySQL
- Leveraged Google Analytics to identify the site options which are most desired and assisted in revamping the department's website to a modern, friendly-to-use design resulting in 16% increase in donations and 21% increase in overall website hits.
- Analysed hundreds of Employee Development Program (EPD) forms for most promising employees and visualised the data for easy analysis by supervisors.
  Tools: Python, PDFminer, NLTK, BeautifulSoup, Jupyter Notebook
- Slashed year end equipment forms generation time 80% by automating the process.
  Tools: Python, python-docx, xlrd, PyCharm
- Efficient IT support and good ticket turnover rate lead to the responsibility of setting up entire IT infrastructure for a new off-campus site.
- Made 0% data loss rate possible by deploying cloud backups and moving data to free cloud services which also improved productivity by cloud collaboration

ACADEMIC PROJECTS

Election Campaign Tweet Mining using Big Data Analytics

- Achieved second best classification accuracy in class for sentiment analysis on a large collection of tweets about the presidential candidates of 2012.
- Exploited Spark technology on Docker to process the large volume of data on Microsoft Azure cloud server.
- Classified tweets as positive, negative and neutral by researching on best feature vectors for breaking down the tweets.
- Classification models were built using Naïve Bayes, Logistic Regression, SVM and Decision Trees.
- Plotted the results using matplotlib for detailed analysis
  Tools: Python, pySpark, NTLK, NumPy, SciPy, matplotlib, Jupyter Notebook, Docker

Restaurant Inspection Prediction using Big Data Analytics

- Analysed yelp's data set consisting of reviews and ratings on restaurants.
- Prediction of restaurant inspections based on the analysed data using machine learning algorithms in Hadoop.
- Provided visualization of the restaurant data in terms of their ratings and reviews.
  Tools: Java, Hadoop, D3.js, Yelp API, NLTK, Eclipse

Consumer Purchase Behaviour

- Implementation of Multiple Support Generalized Sequence Pattern (MS-PS) algorithm in Java for discovering frequently co-occurring items in purchases, given a dataset of store transactions.
- Quality of the generated datasets was analysed with the implementation of the MS-GSP algorithm.
  Tools: Java**,** Eclipse

Defence against Denial of Service

- Designed and developed algorithm for defense at Network Layer against Distributed Denial of Service Attacks.
- Designed and implemented Ingress and Egress filtering using Click-Router architecture written in **C++** and MULTOPS (Data Structure for bandwidth detection)
- Achieved 86% efficiency, competing with industry leading efficiency rates.

Web Ordering System

- Developed an online ordering system for NITC and deployed over its intranet
- Maintained its database and generated reports to track the usage and transactions made on student accounts.
  Tools: HTML, JavaScript, CSS, PHP, MySQL

ACTIVITIES AND ACHIEVEMENTS

- Worked for PRISM (Promoting Regional Schools to International Standards through Multiple Interventions) as a math tutor. PRISM is an education project which is an initiative by the Government of Kerala to facilitate holistic development of regional schools.
- Organized the top event for NITC cultural Fest - Dealing with one of the nation's top singer to perform at NITC
- Selected for Top 10 Teams in National Finalists of Imagine Cup from India. Imagine Cup is an annual competition sponsored and hosted by Microsoft which brings together young technologists worldwide to help resolve some of the world's toughest challenges.
- Semi-finalist for Inter NIT Badminton Championship
- Won Best Project of the year for "Defence against Denial of Service"
- Secured a rank among top 10% students in undergraduate studies
- Secured School First for Class X Board Exams