Saraswati Mishra

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SUMMARY

- Software Engineer with three years of experience in building enterprise Java applications for Telecom infrastructure. Currently pursuing Masters in Computer Science and seeking Software Development internship for Summer 2018.

EDUCATION

- **North Carolina State University**   *Raleigh, NC*
  Master of Computer Science   **GPA - 3.78 / 4**   *Aug 2017 - Dec 2018*
  - **Relevant Coursework** – Advance Learning and Data Analysis, Foundations of Data Science, Database Management Systems, Object-Oriented Design and Development, Design and Analysis of Algorithms, Artificial Intelligence
- **National Institute of Technology, Rourkela**   *Rourkela, India*
  B.Tech, Computer Science and Engineering   **GPA - 8.09 / 10**   *Jun 2010 - May 2014*

EXPERIENCE

- **Centre for Development of Telematics**   *New Delhi, India*
  Research Engineer, Next Generation-Element Management Systems Group   *Aug 2014 – Jul 2017*
  - Developed a web-application for event and log monitoring of call processing devices used in Element Management System (EMS) (JSP, Servlets, Tomcat).
  - Designed an application for IP based restrictive user access in EMS web interface (Java, Tomcat).
  - Developed a back-end application for zone-map creation and region allocation to call-processing devices in EMS (WebNMS, Hibernate, MySQL, Java).
  - Migration of database from MySQL to PostgreSQL for enhanced security, scalability and concurrency control in EMS (WebNMS, PostgreSQL, MySQL, Java).
  - Designed device discovery, status polling and fault management for Softswitch, Session Border Controller and Database Server devices in core EMS Network (WebNMS, Java).
  - Migrated device routing and configuration management commands in Session Border Controller from XML to SNMPV3 for enhanced security in EMS (SNMP, Java).
- **Defence Research and Development Organization**   *Chandipur, India*
  Software Developer-Intern, Proof and Experimental Laboratory   *May 2013 – Jul 2013*
  - Developed a web application for inventory management, tracking device performance and generating quality assessment reports (C# ,Oracle 10g).

ACADEMIC PROJECTS

- **Bank Marketing Analysis**
  - My task was to determine the probability of users buying long-term deposits with the bank.
  - Implemented PCA to determine the comparative relevance of user attributes and reduced the number of features from 21 to 14.
  - Developed a comparative analysis between various Machine Learning models such as Decision Trees, SVM, Logistic Regression and Random Forest.
  - Obtained an accuracy of 88% over a previously benchmarked 77% for Random-Forest technique by using year-wise data. (Python, scikit-learn).
- **Aspect-based sentiment summarizer using Amazon Review dataset**
  - My task was to do sentiment analysis for different product categories on Amazon review dataset.
  - Developed an edge-weighted based sentiment lexicon graph using synonyms and antonyms(OpenNLP, Java, MongoDB).
  - Implemented dynamic feature extraction using weighted sentiment lexicon for filtering relevant reviews.
- **Fault Detection in Wireless Sensor Networks**
  - Implemented clustering in localized fault-detection algorithm and optimized it for wireless sensor network, tuning parameters for various network sizes.

SKILLS AND EXPERTISE

Languages   :Java, C, C++, C# , R, Python, JavaScript, Scala
Technologies :J2EE(JSP & Servlets), Spring MVC,Hibernate, PL/SQL, PostgreSQL, MongoDB, Cassandra, Apache Spark
Tools   :Visual Studio, Eclipse, Android SDK, MATLAB, WebNMS, Git, OpenNLP

PUBLICATIONS

- Saraswati Mishra, Avnish Chandra Suman "An Efficient Method of Partitioning High Volumes of Multidimensional Data for Parallel Clustering Algorithms" , Int. Journal of Engineering Research and Applications,https://arxiv.org/abs/1609.06221

ACHIEVEMENTS AND ACTIVITIES

- Mentor for Summer Internship Program at Centre for Development of Telematics, New Delhi.
- Developed mobile application for volunteer, event and campaign management for ForHer Foundation (REST, Android SDK).
- Volunteer student teacher at REC Campus School through National Service Scheme, NIT Rourkela.
- KVPY (Young Scientist Incentive Fellowship) Finalist , amongst top 600 students in India.