SOUTRI MUKHERJEE

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EDUCATION

Indiana University, Bloomington, Indiana **August 2019**
Master's in Computer Science
Pune Institute of Computer Technology, Pune, Maharashtra **June 2016**
Bachelor of Engineering in Computer Engineering

TECHNICAL SKILLS

Languages: Python, Java, C, C++, R, HTML5, Scala, JavaScript, XML, PHP
Databases and Cloud Platforms: MySQL, MongoDB, Cassandra, Oracle, Hadoop, Openstack, AWS
Frameworks, Tools and Technologies: Angular, Nodejs, JQuery, Bootstrap, GULP, Qt, Tableau, PyCharm, IntelliJ, Selenium, Visual Studio, RStudio, Latex, VMware, Modelio, Eclipse, NetBeans

WORK EXPERIENCE

Software Development Intern **July 2018-Present**
Ardent Security
- Developed a software data sanitization tool using python to prevent data leaks.
- Technologies Used: Front-End: HTML5, CSS3, Angular JS Back-End: Gulp, MongoDb,NodeJs.

Accenture, Pune, India **November 2016 – July 2017**
Application Development Associate
- Worked for a Canada based client in Automation testing using Java and Selenium. Also developed and executed test scripts for functional testing.
- Automated monthly budget tracker, developed monthly reports on forecasting, communicated with the onshore client team to fulfill business requirements and develop business models. RTC, Coupa, Abacus, MME are other tools I've worked on.

Indian Oil Corporation, Kochi, Kerala **June 2014 – July 2014**
Summer Intern
Developed LFR, a tool that analyzes lube fuel ratio, sales growth and average sales of lubes and generate performance metric reports for business stakeholders. Technologies used: Java Server Side Programming, Java Applets, JDBC, Java Servlet, XML, JavaScript.
- **Data collection**: Designed and implemented jsp pages to fetch and load data from Oracle XE database.
- **Query tuning**: Worked on optimizing and tuning SQL Queries to improve performance and response time.
- **Data security**: Designed and implemented security features using cryptographic hash functions to protect sensitive information.

PROJECTS

Quantitative Analysis of Mobile Applications and Mobile Websites (Application Resource Optimizer Tool) **May 2018**
Performed a comparative analysis of energy usage and data consumption of a mobile application client and web browser client for the same service and suggest methods to optimize mobile app performance. Awarded best project for the course!

Emonet- A Real Time Emotion Detection Tool (Machine Learning, Neural Network, Python, Computer Vison) **May 2018**
- Developed a Deep Convolutional Network architecture that extracts facial features of the user from a live video application and instantly returns their emotion with 87% accuracy.

Stock Prediction Using Social Media Data (Machine Learning, Neural Network, Python) **April 2018**
- Developed a model that predicts stock market trends from Twitter feeds. Developed LSTM+CNN and SVM models that uses human sentiment to predict stock behaviors for any set of companies.

Creating Multi-Image Panoramas (C++, Computer Vison) **January 2018**
- Developed a system that combines multiple pictures into a 360-degree panorama. This software detects uses SIFT features to perform feature matching. After warping and blending, the system presents a panorama image.

Porto-Seguro-Safe-Driver-Prediction(R, Machine Learning) **December 2017**
- This Kaggle project is based on predicting the probability of an auto insurance policyholder filing a claim. Implemented XGBoost, Logistic Regression, Random Forest and successfully acquired a position among the top 1% of the contenders.

Xinu Embedded Operating System (C, Operating Systems) **October 2017**
- Improved on Xinu by decreasing the OS processing time by 30%. Automated system calls for inter process communication. Implemented futures to allow synchronization of threads. Implemented the entire ext2 file system for xinu operating system.

OpenStack Resource Management Tool (Python, Openstack, Qt) **May 2017**
- Automated the process of Multi-node Openstack ICE-house Deployment on Ubuntu Servers 14.04 nested on VMware ESXi 5.5. Further, contributed to open-source community by developing an easy-to-use UI-based tool that fetches real time monitoring results of the instances and their network activities.

XODIA(Python, BASH, Machine Learning, Artificial Intelligence) **July 2016**
- Developed an online AI gaming platform for ML Bots to fight against each other. Developed BASH scripts to automate the tournament and increased the difficulty level of the game by developing test bots using Dynamic programming (first version).