Souradeepta Biswas

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Education

Syracuse University

Master of Science in Computer Science
Dec 2019 | Syracuse, NY

National Institute of Technology

Bachelor of Technology in Computer Engineering
April 2013 | Surat, India

Skills

Programming
Advanced:
C/C++ • Python • MySQL
Proficient:
C# • Java • SQL Server • NodeJS • HTML5 • CSS3
Familiar:
• MongoDB • Haskell • R

Software Tools
Visual Studio • Eclipse • R Studio • Weka • Amazon Web Services • IBM Bluemix • Jira • Git • Jupyter Notebook

Certificates
Certified Scrum Master • IBM Bluemix Essentials • DB2 10.1 • AHM250 • AHM520• AHM 530 • Big Data Fundamentals

OS
Windows • Linux• Z/OS

Coursework

Graduate

Design and Analysis of Algorithms
Introduction to Data Science
Principles of Operating Systems
Software Modelling & Analysis

Undergraduate

Information Security
Database Management Systems
Data Structures
Network & System Security

Awards

Manager's Choice Award

Awarded for having the best deliverable quality of 98% in a team of 20.

Experience

IBM India Private Limited | System Engineer
Nov 2014 - Dec 2017 | Bangalore, India
- Developed **NodeJS, MongoDB** web app for new **ICD10** patient health data aggregation. PHI compliant data retrieval and maintenance along with portal for the customer to view health history. Overhaul of legacy system, improved claim processing by 100%.
- Doctor portal for patient management and drug issue tools which would improve drug delivery to patient by 50% in 4 years.
- Was a **Scrum Master** of 20 member team. Saved 10 hours/week on meetings.
- Developed **Java** apps to interact with claims on the Mainframe for customer bill & subscription notification. Helped reduce paper notifications and cost by 20%.

IBM India Private Limited | Associate System Engineer
Nov 2013 - Nov 2014 | Bangalore, India
- Developed and maintained COBOL programs for **Anthem** and **NASCO**. improving existing claims, membership handling and updating new features to the legacy system meeting SLA target of above 95%.
- Mentored 10 new team members on **Watson Cognitive systems** saving over 60 man-hours.

Projects

LibX - C# App Ongoing
- Employees can access functions such as pick, drop, post - shifts.
- Also has a portal for supervisors to approve and manage shifts and employees. Message board for notices and queries.
- Application developed for Syracuse University Library.

Remote Package Dependency Analysis Dec 2018
- Multi-threaded app developed on **C#** using **WCF** and **WPF**.
- Performs type-based analysis and strong component indicator using **Trajan's algorithm** for performance measurement.
- Tokenized parser allows expansion for new languages.

Predicting Box-Office Revenue using Tweets Dec 2018
- Performed by applying multivariate regression on features found using exploratory analysis.
- Applied sentiment analysis on tweets using **NLTK** and trained multiple classification models - **Bernoulli Naive Bayes, Linear SVC, Logistic Regression** for accuracy
- Other features selected like - theaters released in, day/month of release, Starmeter rating from IMDB.
- This ML model can be applied to similar data sets for predicting revenue for marketing and advertising.

LeaveIT - leave tracker and analytics Java App Nov 2017
- App interacts with employees leave tracker database to help log and update leaves.
- Interacts with **IBM Lotus Notes** to trigger out of office messages with custom notes.
- Shows analytics on the Manager portal for employee utilization and overtime.
- Saved 100 man-hours in a day spent on incorrectly updated and forgotten HR updates.

Secure Data Aggregation on Wireless Sensor Networks May 2013
- Provide an energy and cost efficient algorithm to ensure authentication of every node through **Privacy Homomorphic Algorithms**.
- **Elliptic Curve Cryptography** used for small key sizes. Merkel tree used for authentication with SHA-2 used for hashing.
- Evaluated performance on **TinyOS** with **nesC** compiler.