SHUBHAM SINGHAL

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OBJECTIVE

Passionate Software Developer and Machine Learning enthusiast looking forward to be the part of innovative and fast-growing organization to contribute to its success and self-professional growth.

EDUCATION

MSCS (Includes 1 year online), **Georgia Institute of Technology, Atlanta,** Graduating in May 2020**,** 3/4

B.tech. (I.T.), **Indian Institute of Information Technology, Allahabad, India,** June 2010 – July 2014**,** 9.27/10

WORK EXPERIENCE

Software Engineer @Booking.com, Amsterdam - August 2018 to August 2019

Deal of the Day (DOTD)

Designed an algorithm to determine partners which would be eligible for the DOTD program. The program provides them better ranking in search results on the particular day. Wrote an **oozie Job** in **pyspark** on **Hadoop** clusters to process and select hotels eligible for DOTD program.

Campaign Microservice

Implemented a microservice to create campaigns without the need of technical development for the future campaign launches. **Alerting and Monitoring** in addition to **A/B testing** were integral part of the service.

Software Engineer @Microsoft India Development Center, India - March 2017 to August 2018

Drive Vicinity

Researched, designed and implemented the algorithm to determine the regions where people drive the most. Wrote the Cron Job which would process the last 30 days drives backed up on **Azure Data warehouse**, determine the most visited location, push them to **Azure Blob** and exported to MSSQL.

Reporting Microservice

Wrote a **microservice** to generate reports on users' drives. Microservice was deployed on Azure **Kubernetes** Service, as **Docker** Containers. Service was written in **Python 3, Django**. Reports were generated asynchronously using **Redis** queue and **celery** workers. **New relic** alerting was added to monitor health of the service. In addition to **Integration Testing**, code coverage with **Unit Testing** was maintained above 80%**.**

GDPR

I wrote the service which will take the request to delete users' data from customer support team, crawl over each underlying services to delete user's profile. Delete request could also be withdrawn within 30 days.

Member of Technical Staff @Adobe Systems, India - July 2014 to March 2017

2 way SSL in Adobe Experience Manager (AEM)

Added the support for **2 way SSL** authentication using **Java** in AEM on web.

Adobe SignIn workflow

Integrated Adobe Sign in the AEM workflow, asynchronously by multithreading. Threads kept on polling the Adobe Sign service to check for user's action, later they callback the workflow when user sign the document.

RESEARCH EXPERIENCE

Indian Institute of Technology, Bombay - Jan 2014-June 2014

Eye Tracking for Natural Language Processing.

To identify cognitive features in the text, an algorithm to generate consensus scanpath (eye movements) out of multiple scanpaths using **Bayesian Probability Reasoning** and **Hidden Markov Model** was proposed.

Indian Institute of Science, Bangalore - May 2012-June 2012

Analysis of eye gaze scanpath data.

To determine the dependency between different sentences in the text, an algorithm was proposed to convert scanpaths into an **undirected weighted graph** by combining saccades to form edges and fixations as nodes.

ACADEMIC PROJECTS

Classification of Images using Artificial Neural Network - Jan 2019 – May 2019

Classified images using the connectionist model ANN. Classes were further classified into subcategories using another ANN for each class.

Improving the efficiency of the Information Retrieval system - July 2013 – Dec 2013

Disambiguated the sense of the ambiguous word in a query by looking at the context in which it is used to retrieve the best relevant documents in the Information Retrieval System.