SHUBHAM SINGHAL
Apt 3666, SteelWorks, 1220, Mecaslin St Nw, Atlanta GA
+14045435015| shubham07iiit@gmail.com
https://shubham07iiit.github.io,
https://in.linkedin.com/in/shubhamsinghal7

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

Georgia Institute of Technology, Atlanta **August 2018 – May 2020**
Masters in Computer Science (MSCS)

Indian Institute of Information Technology, Allahabad, India **June 2010 – July 2014**
Bachelor of Technology (B.Tech), Information Technology

AREAS OF INTEREST

- Data Structure and Algorithms
- Database Systems
- Operating Systems
- Machine Learning

WORK EXPERIENCE

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

In Booking.com, I was a member of the Deals team where we launched campaigns around the year.

Deal of the Day

- Designed and implemented the algorithm to make partners eligible for the deal of the day program, which will provide them special benefits on a particular day.
- Wrote an oozie Job in pyspark to process hotels on Hadoop clusters. Job would run every day and export the resultant partners to the SQL database to be processed by client-facing API's.

Campaign Microservice

- I, in the team of 2 back end developers and 1 front end developer implemented a service to create campaigns without the need of development for the future campaign launches.
- Alerting and Monitoring was integral part of the service which would monitor the traffic, send alerts if booking gets cancelled or deal could not be booked.

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

In Microsoft, I was part of the Mobile Data Labs. The MileIq is the app that captures trips while people are driving and classifies the trips as Business and Personal, since business trips are used for tax benefits.

Drive Vicinity

- I researched, designed and implemented the algorithm to determine the regions where people drive the most. These are top locations suggested to users while adding missing drives.
- 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

- I was the core developer who started a fresh new microservice to separate the reporting logic from various businesses in MDL.
- Service was written in Python 3, Django with New relic and periscope dashboard to show the health and status of live reports generated. Reports were generated asynchronously using Redis queue and celery workers.
- Staging/ Develop/ Performance environment were set up with automated JMeter Integration tests and unit testing. Code coverage was maintained above 80%.
- Later Integrated the service with expense services like XERO, which would help users to file the tax.

GDPR

- I Wrote the service which will take the request to delete users' data and crawl over entire MDL to delete user's profile while delete request could be withdrawn within 30 days.

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

I was working in Adobe Experience Manager which is the platform to dynamically creating web form and workflows.

2 way SSL

- Added the support for 2 way SSL authentication in AEM application on web.

Pagination of Webforms

- Optimized database queries to fetch results in chunks to improve the performance of the application.

Adobe Sign in the workflow

- Integrated Adobe Sign in the AEM workflow which will call Adobe Sign API's asynchronously to send the request to sign the document,
- The workflow will listen to service periodically to check the status of the document. It will progress the workflow if action has been taken by the user on the document requested to sign.

RESEARCH EXPERIENCE

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

Eye Tracking for Natural Language Processing.

- An algorithm to generate consensus scanpath (eye movements) out of multiple scanpaths using Bayesian Probability Reasoning and Hidden Markov Model was proposed.
- Such consensus scanpath help in identifying peculiar features of the text.

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

Analysis of eye gaze scanpath data.

- An algorithm was proposed to convert scanpaths into an undirected weighted graph by combining saccades to form edges and a cluster of fixations as nodes.
- Such consensus scanpath helps in determining correlation in different parts of the text given the context.

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 sub-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.

Eye Tracking on images **July/2012 – Dec/2012**

- Ran eye tracking experiment on 5 subjects over 15 set of images in the lab. Later clustered fixations using dynamic K-mean clustering to determine salient features in particular set of images.

TECHNICAL SKILLS

Programming Languages: C, C++, Java, Python.
Data Science Libraries: Numpy, Pandas, Matlab, scikit learn, Spark
Cloud Infrastructure: AWS, Microsoft Azure
Frameworks: Django, Flask