SHUBHAM SINGHAL

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EDUCATION

Indian Institute of Information Technology, Allahabad, India (IIITA)   June 2010 – July 2014
Bachelor of Technology (B.Tech), Information Technology   CGPA: 9.27/10.0

WORK EXPERIENCE

Software Engineer @Booking.com, Amsterdam   August 2018 to Present

At Booking.com, I am the part of the Deals team where we launch several deals with substantial discount on hotels all the year around in different regions and to different types of customers.

- Ownership of several campaign launches.
- Worked in the team of 3 to implement an internal tool to launch campaigns without any technical complications and code. Basically, tool is available to each member (tech and non-tech) of the team and can be easily used.

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

At Microsoft, I am working in Mobile Data Labs team (MileIq). It is an Android/IOS app which captures users' drives for tax saving and generates reports.

- Written a highly scalable, robust and fault tolerant microservice (named reporting microservice). It is written in Python 3, Django, Azure SQL Server. Used Redis queue as producer and celery as workers for asynchronous reports generation. Integrated Reporting Microservice with third party expense service - XERO
- Analyzed large dataset of drives to deduce the location where users drive most. Data is hosted on AWS Redshift, Once analyzed results are uploaded to S3 and migrated to Postgres.

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

In Adobe I was part of Adobe Experience Manager, Forms (AEM Forms) core team. It is the platform which let users maintain their content and assets, it provides a solution for building websites, mobile apps and forms. We used Java at Backend and CoralUI, JS at frontend.

- Providing mutual authentication (2 way SSL) based secure connection to clients.
- Optimizing database queries to retrieve results faster- pagination to improve the efficiency of the whole system and user experience.
- UI + backend to manage AEM forms watched folder.
- Created multiple workflow items which help businesses to automate their workflows.
- Integrated Adobe Sign product with workflows in a multithreaded environment.

RESEARCH EXPERIENCE

Indian Institute of Technology, Bombay (IIT-B)   Jan 2014-June 2014

- Eye Tracking for Natural Language Processing.   Under the guidance of **Prof. Pushpak Bhattacharyya**
  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 (IISc, Bangalore)   May 2012-June 2012

- Analysis of eye gaze scanpath data.   Under the guidance of **Prof. C.E. Veni Madhavan**
  An algorithm was proposed to convert scanpaths into undirected weighted graph by combining saccades to form edges and clustering fixations as Areas of Interest (AOI) to form nodes. This scanpath helps to understand the correlation between different areas of the text.

ACADEMIC PROJECTS

- **Improving efficiency of Information Retrieval system using "Word Sense Disambiguation".**   July 2013 – Dec 2013
  Disambiguated the sense of the ambiguous word in a query by looking the context in which it is used to retrieve the best relevant documents in Information Retrieval System.
- **Classification of Images using Artificial Neural Network in Distributed Environment.**   Jan 2013 – June 2013
  Classified images using connectionist model ANN. For improving speed Hierarchical ANN was used in Distributed Environment and each ANN was parallelized.
- **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.
- **Face Recognition using Principal Component Analysis and ANN**

TECHNICAL SKILLS

Programming Languages: C, C++, Java, Python, PHP, MATLAB, JavaScript, HTML5, CSS.
Frameworks: Struts, Hibernate, Django, Flask.
Analytics Platforms: Amazon Redhsift, Azure Data Warehouse
Cloud Infrastructure: AWS, Azure