

SHUBHAM SINGHAL

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EDUCATION

Columbia University

Master of Science in Computer Science

New York, NY

Dec 2018 (Expected)

IIIT Delhi

Bachelor of Technology in Computer Science

Delhi, IN

May 2014

PROFESSIONAL EXPERIENCE

Google Inc., *Software Engineering Intern*

May 2018 – August 2018

Orientation Estimator, Location Context Team

- Developed framework to infuse impairments for low-end devices using crowd-sourced sensor traces which enhanced orientation performance evaluation for millions of Android devices
- Designed and implemented metrics for validation of orientation systems with suitable estimators to be used in Google Maps and GeoAR

Samsung R&D India, *Software Engineer*

Jul 2014 – Jul 2017

Samsung Connect & Smart Home (iOS and Xamarin)

- Deployed device subscription to Samsung Smart Home Cloud to control smart home appliances
- Delivered prototype cross-platform hybrid app for iOS and Android on Xamarin platform replicating the current app

Samsung Wireless Audio – MultiRoom App 2.5 (iOS)

- Shipped iOS app and implemented DLNA and UPnP protocols for wireless speakers allowing tether-free streaming
- Decreased latency between the speakers and content providers and designed Search and Indexing Service to support media search on thousands of music streams

Blu-Ray Disc Ripper, *Software Development Intern* (Python)

May 2013 - July 2013

- Developed Python based prototype tool to process high volume data and rip Blu-Ray clip for area of interest
- Reduced data transmission by approximately 70% by data inspection and modeling

PROJECTS

Eyes & Ears (Google Cloud Machine Learning APIs)

DevFest Hackathon 2018

- Designed end to end system to translate videos in over 100 languages (Google Translation and Speech APIs)
- Worked on Video Intelligence & Cloud Vision APIs to get shot description from image labeling, face, logo and landmark detection
- The webapp assists visually impaired people and allows access to vast collection of video content in all supported languages

E-Commerce Platform – Microservices & Web Apps (AngularJS, Node.js, AWS)

Columbia University

- Designed and implemented Elastic Beanstalk microservices for ecommerce application integrating components viz. RESTful APIs/HATEOAS, SNS events and OAuth2
- Developed middleware with integrated Redis for supporting ETags and idempotency
- Worked on Neo4J as the graph DB platform to identify relationships between users and purchased/viewed products

Flight Delay Analysis and Prediction – Big Data Analytics (Flask, Pandas, sklearn)

Columbia University

- Performed data preprocessing and visualization to identify features vital for prediction of departure/arrival delays
- Developed multinomial logistic regression model to predict delays in upcoming flights with accuracy of 68.2%
- Designed and developed interactive web app to search for flights between cities, view delay history and predict delay status for the search query

Dining Recommendation – Virtual Assistant (AWS Lambda, AmazonML, Elasticsearch)

Columbia University

- Developed recommendation web app with chat bot to search dining places based on customer preferences for cuisine and place
- Chat bot was trained on Amazon Lex with natural language understanding to recognize customer's intent which sourced recommendations from the Elasticsearch and AmazonML based engine

SKILLS & INTERESTS

Interests

Cloud Computing, Big Data, Application Development, Microservices

Programming Languages

Java, Python, SQL, AngularJS, Objective C

Tools and Technologies

AWS, Google Cloud, Spark, iOS, sklearn, Git, Xamarin, TouchDevelop

ACHIEVEMENTS

1st Prize, DEVFEST Hackathon, Columbia University · Best Project Award sponsored by Google
Idea For Innovation Award, Samsung R&D India, 2015