Kushagra Bhargava

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EDUCATION

MS, Computer Science, University of Southern California, Los Angeles GPA: 3.57 | December 2020

<u>Honor</u>: NextGen Fellow, Internet Corporation for Assigned Names & Numbers (ICANN66)

B.Tech., Computer Science and Engineering, GGSIPU, India CPI: 77.53 | July 2012 — May 2016

<u>Honor</u>: Best Outgoing Student (Department of Computer Science)

TECHNICAL SKILLS

Languages and Databases: Python, Java, JavaScript, Bash, Swift (iOS), MySQL, MongoDB, Redis

Data Engineering: Celery, Apache Storm, Selenium, pandas, numpy, scikit-learn, Version Control (Git)

Web Development: NodeJS, ReactJS, ExpressJS, PHP, REST APIs

Coursework: Machine Learning, Web Technologies, Analysis of Algorithms, Database Systems, Advanced

Mobile Devices & Game Consoles

WORK EXPERIENCE

Full Stack Developer — Apple India via Randstad India

June 2018 — December 2018

- Developed a crowdsourced data annotation system using **MERN stack** to organise and conveniently categorize consumer feedback based on taxonomies for each Apple product.
- Built scalable end-to-end pipeline streamlining client requests ensuring data concurrency & consistency.
- Engineered recorded annotations to serve as a training dataset for an NLP model & automate sub-categorization of consumer issues received for each product.
- Designed a **normalised storage schema** for unstructured data, earlier stored in scattered spreadsheets.
- Enhanced **UX** & **throughput** by building robust UI for handling large data influx in crowdsourced system.
- <u>Technologies used</u>: ReactJS, ExpressJS, Python, MongoDB & MySQL

Research Associate - Precog Labs, IIIT Delhi, India

June 2016 — June 2018

- Designed an application, conducting forensic analysis of data generated on online social networks.
- Implemented an async distributed-task queue, and real-time computation mechanism for processing unbounded streams of data, achieving scalability, & enhancing resilience to failure by 17.95%.
- Being currently used by 100+ state and federal government agencies and armed forces across India.
- <u>Technologies used</u>: Celery, Redis, Python, Apache Storm (Py wrapper) and MongoDB

PROJECTS

SocialRep: Detecting Twitterrati with Manipulated Follower Count

(Python, REST API, scikit-learn)

- Proposed unsupervised neighborhood detection using **k-d tree** for identification of Twitter users (with **98.62% precision**) bolstering their online social reputation via inorganic manipulation of follower count.
- Achieved **84.2**% accuracy for computing corrected follower count using neighborhoods of 500 relevant topic experts showing similarity on features eg. interest topics in user bio, account creation time etc.

Real-World Object Detection and Occlusion in Augmented Reality

(iOS, XCode, ARKit

- Designed iOS plugin to retrieve position & spatial orientation of real-world objects of any shape & size.
- Enhanced AR experience in iOS by allowing to occlude virtual entities behind real objects in 3D space.

Comment Based Seller Trust Model for E-commerce (Java, Python, Selenium, scikit-learn, MongoDB)

- Designed reliable seller trust model to compute cumulative feedback rating (user-ratings + textual reviews) of local sellers registered on Indian e-commerce platforms: amazon.in & flipkart.com.
- Implemented supervised learning using **linear SVM** for sentiment classification of consumer reviews.

ACHIEVEMENTS