Mridul **Birla**

SOFTWARE ENGINEER

Sunnyvale CA

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Education ──────────────────────────────────────

Indiana University Bloomington   *Bloomington, Indiana*

M.S IN COMPUTER SCIENCE   *2015 – 2017*

Pune Institute of Computer Technology   *Pune, India*

B.E IN INFORMATION TECHNOLOGY   *2008 – 2012*

Summary ──────────────────────────────────────

Currently Software Dev engineer at Yahoo! with a demonstrated history of working in the internet industry. My current work includes enhancing and improving the entity knowledge base. It primarily involves data mining and information extraction over Hadoop clusters by using Spark, Pig and Python. I am also involved creating end to end data pipelines for various usecases and improve current query understanding models. Interested in devising a better problem-solving method for challenging tasks, and learning new technologies and tools if the need arises.

Skills ──────────────────────────────────────

Languages   Python, C++, Java, SQL

Technologies   Machine Learning, TensorFlow, Spark, Hive, SQL, Git, Pandas, Matplotlib, NLP, Hadoop, Kafka, Storm, Oozie, Docker

Work Experience ──────────────────────────────────────

Yahoo!   *Sunnyvale, CA*

SOFTWARE DEV ENGINEER II   *June 2017 - Present*

- Developed components for the query understanding system and infrastructure using C++, Python, Perl for Query Linguistic Analysis Service Team at Yahoo! Search.
- Engineered features for feature transformations, offline studies for feature selection, online A/B testing.
- Built system for large scale data extraction, aggregation and analytic using Spark, Pig, Hive and Hadoop.
- Data Analysis for billions of click samples and users across Y! Search using Hadoop/Spark/Pig/Hive.
- Built ranking system pipeline for large scale sports entities from raw search logs and knowledge base.

Yahoo!   *Sunnyvale, CA*

INTERN II   *May 2016 - August 2016*

- Designed and implemented framework to ingest user search queries and process it using Storm, Kafka and HBase in Java.
- Created deep learning framework using TensorFlow to identify whether the image related to the trending term is similar to previous blocked images.

TIBCO Software INC   *Pune, India*

ASSOCIATE CONSULTANT   *July 2012 - June 2015*

- Engineered large scale big data enterprise software for clients such as Kroger, Esselor using Java, XML, NO-SQL and SQL databases.
- Won Rookie of Year award.

Projects ──────────────────────────────────────

Part of Speech Tagger

ARTIFICIAL INTELLIGENCE

- Implemented a parts of speech tagger in python by using Brown corpus dataset. Applied Naive Inference, Gibbs (MCMC) sampling and Viterbi to predict the POS tagger for new sentences.

Twitter Geo Location Classifier

MACHINE LEARNING

- Implemented a twitter feed geo-location classifier using python and NLTK. Applied SVM, Multinomial Naive Bayes to classify incoming tweets into different U.S state.

Caption to Image Generation

COMPUTER VISION

- Creating a model that generates images from natural language descriptions using generative neural net models, specifically adversarial and recurrent neural network.