

Oyesh Mann Singh

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Education

University of Maryland Baltimore County, MD

08/2017-12/2020

Masters in Computer Science

GPA-3.756/4

Technical Skills

- **Programming Languages** - Python, R, MySQL, PostgreSQL, NoSQL (MongoDB), Java, C++, HTML, CSS, Bash
- **Others** - Linux, PyTorch, Github, AWS (Lambda, DynamoDB, Glue, ElasticBeanstalk), NLTK, Pandas, Sklearn, Flask, REST API, Docker, Apache Airflow, CI/CD pipeline (Github Actions)

Professional Experience

Research Intern

NAAMII, Kathmandu, Nepal

06/2020-08/2020

- Developed a non-parametric Bayesian Model for unsupervised morphological segmentation task. Deployed this model as a web app on AWS Elastic Beanstalk following CI/CD pipeline using Github Actions
- Github link - <https://github.com/oya163/gibbs>

Research Intern

HLTCOE, Baltimore, MD

06/2019-08/2019

- Increased the entity-tagged dataset volume by 500% by introducing more Wikidata classes and IDF scores in existing Wikipedia framework especially for Chinese and Russian languages
- Improved the NER F1 score by 4% for Chinese language by pre-training BERT with newly obtained dataset compared to the BERT-base

Data Intern

Relus Cloud Technologies, Atlanta, GA

06/2018-08/2018

- Built ETL data pipeline on AWS platform (Kinesis, Glue, S3, Lambda, DynamoDB) to process streaming data for OrangeTheory Fitness and McDonald's. The scripts were written in python and nodejs

Teaching Assistant

UMBC, Baltimore, MD

08/2017-12/2020

- Worked 20 hrs/week to assist 30-40 students in undergraduate and graduate courses of Data Structure, Computer Architecture, Advance Operating Systems and Data Science

Software Developer

Lamar University, Beaumont, TX

03/2015-05/2017

- Enhanced Chemical Analyzer Barometer(CAB) software based on Java by using auto-thresholding technique of Otsu's method and added more GUI features, adding convenience and increasing efficiency for data analysis

Associate Software Developer

Software Paradigm Infotech, Kathmandu, Nepal

01/2013-12/2014

- Successfully completed two projects in COBOL using CMMI level 5 process in Credit Management and Reservation domain for Macy's

Projects

- **Nepali Stemmer:** <https://nepali-stemmer.herokuapp.com> 04/2020
This is a rule-based stemmer in Nepali language. It is hosted on Heroku platform as python-flask web app.
- **Aspect Based Abusive Sentiment Analysis:** 09/2019
<https://github.com/oya163/nepali-sentiment-analysis> [PRIVATE]
Completed Targeted Aspect Based Abusive Sentiment Analysis project on YouTube comments in Nepali language. Trained multilingual BERT for Aspect Term Extraction and Polarity Classification task.
- **Nepali Named Entity Recognition:** <https://nepner.herokuapp.com/> 02/2019
Completed NER project for low-resource language (Nepali) achieving 86.9 overall F-score using BiLSTM + Grapheme-level CNN architecture. It is deployed on Heroku platform as a web app.
- **Data Analysis on 311 Dataset:** <https://github.com/oya163/R-project> 02/2018
Led a team of four to analyze and build a predictive regression model to estimate the time taken for a neighborhood in Baltimore based on 311 dataset of 3 million records.