Oyesh Mann Singh

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Education

University of Maryland Baltimore County, MD	**08/2017-12/2020**
Masters of Science in Computer Science	GPA-3.756

Kathmandu Engineering College, Nepal	**05/2007-12/2011**
Bachelors of Science in Computer Science	GPA-70.11

Technical Skills

- **Programming Languages** - C#/.NET, Python, R, Java, C++, Javascript, Bash
- **Database** - MySQL, PostgreSQL, NoSQL (MongoDB)
- **Framework** - Flask, Django, ReactJS
- **Cloud** - Amazon Web Services (AWS)
- **Others** - Github, Rest API, Docker, Kubernetes, CI/CD pipeline (Github Actions, Travis CI), scipy, numpy, pandas, PyTorch, Redis, Apache Airflow

Professional Experience

Research Intern, NAAMII, Kathmandu, Nepal   **06/2020-08/2020**
- Developed a machine learning model in Python for unsupervised morphological segmentation task achieving 74.8% F1-score. Deployed this model as a web app on AWS EB with CI/CD pipeline (Github Actions)

Research Intern, Johns Hopkins University, Baltimore, MD   **06/2019-08/2019**
- Automated the dataset annotating task using Wikidata relationship and increased entity-tagged dataset volume by approximately 500% by scraping the Wikipedia articles in English, Chinese and Russian languages using Python/Bash scripts
- Improved the NER CoNLL F1-score by almost 4% for Chinese by fine-tuning BERT model on this larger dataset, compared to the one without fine-tuned

Data Intern, Relus Cloud Technologies, Atlanta, GA   **06/2018-08/2018**
- Successfully completed two ETL projects on AWS platform to extract millions of real-time records from wearable devices, transform using Lambda (Python/NodeJS) scripts and loading into DynamoDB

Software Developer, Lamar University, Beaumont, TX   **03/2015-05/2017**
- Increased the segmentation accuracy by 70% for water droplet edge detection software in core Java/OpenCV

Associate Software Developer, Software Paradigm Infotech, Kathmandu, Nepal   **01/2013-12/2014**
- Completed CMMI level 5 projects following SDLC process in C#/ASP.NET framework
- Worked on feature enhancement of internal projects based on C#, MS SQL Server and .NET MVC Framework

Projects & Publications

- **Crown Clothing Store**   **12/2020**
  Currently building a e-commerce web application based on ReactJS, Firebase Authentication, Redux and NodeJS, along with continuous deployment on Heroku
- **Aspect Based Abusive Sentiment Analysis**   **05/2020**
  Open-sourced this first sentiment dataset in Nepali containing 5135 YouTube comments. Achieved 57.98% F1-score on Aspect Term Extraction and 81.60% F1-score on Sentiment Classification task using BERT model
- **Nepali Named Entity Recognition**   **05/2019**
  Completed first Nepali NER project with 86.9% F1-score using BiLSTM + Grapheme-level CNN architecture. Deployed this model on Heroku using Python/Flask framework

Certifications

- **M121: MongoDB Aggregation Framework**   **09/2020**
- **AWS Certified Developer Associate** (in progress)   **11/2020**
- **Dockers** and **Kubernetes**   **12/2020**
- **ReactJS, Redux, Hooks, GraphQL** (in progress)   **12/2020**