

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** - Python, R, Java, C++, C#/.NET, 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), PyTorch, Redis, Apache Airflow

Professional Experience

Research Intern, NAAMII, Kathmandu, Nepal	06/2020-08/2020
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- Developed a non-parametric Bayesian Model for unsupervised morphological segmentation task with 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
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- 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
- 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
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- 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
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- 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
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- Completed projects in Credit Management & Reservation/Delivery domain in C#/.NET and COBOL

Projects & Publications

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| • 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

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| • 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 |