

Sarbottam Thapa Magar

Halifax, NS | 902-8179421 | Sarbottam.Thapa.Magar@gmail.com | <https://mattobad.github.io/>

Experience

Data Science Analyst

Aug 2021– present

Halifax Regional Municipality

Involvement in end-to-end product development from problem definition, and design to deployment.

- ❖ Identifying business questions and testing hypotheses using research & jurisdiction scans.
- ❖ Propose predictive analytic capabilities in-house through research, development, and prototyping.
- ❖ Research and experimentation with different Natural Language Processing tools & techniques like word-embeddings, transformers, transfer learning and frameworks like Haystack for semantic document search.
- ❖ Presented insights of Municipalities building energy and emission trends through dashboard using Dash.
- ❖ Built Citizen Twitter analytics app using Dash to understand citizens views on HRM strategies related to Climate change through storytelling with incorporation of sentiment analysis, word cloud and topic modeling.
- ❖ Prototype service chatbot using RASA Framework.
- ❖ Communicating the result to technical and non-technical audiences.

Data Science Fellow (http://bit.ly/vehicle_prj_live)

Dec 2020 – July 2021

SharpestMinds

Built a Full-Stack Data Science product that can predict a used vehicle's price as a point estimate as well as a range based on its characteristics.

- ❖ Worked with a scraped dataset from Kaggle containing "458,213 raw data points".
- ❖ Built Gradient Boosting Tree-based model with a point estimation accuracy of 89.52% and an MAE 2,527.49 dollars.
- ❖ Implemented Quantile model Prediction for the vehicle price range.
- ❖ Built Serverless RESTful API for serving the model with AWS using Zappa.
- ❖ Used GitHub Actions for automating CI/CD pipeline and pytest for a test suite.
- ❖ Collaborating through a mentorship with a Senior Machine Learning Engineer at DTN.

Research Intern

May 2019 – Oct 2019

GreyLit Inc.

Halifax, NS, Canada

Built multimedia search engine using AWS Serverless architecture.

- ❖ Developed front-end as well as back-end with serverless architecture and performed quality assurance.
- ❖ Built a microservices with lambda to execute the pipeline for text extraction from different multimedia and document files using AWS Machine Learning services (Textract, Transcription, Transcribe) which uses Comprehend & Elasticsearch to index the documents stored in S3 Bucket.
- ❖ Tested the whole system with around 1GB of data consisting of different documents (images, docs, pdfs) and multimedia files (video & audio).

Junior Android Developer

May 2016 – March 2018

Mero Design Pvt. Ltd.

Kathmandu, Nepal

Collaborate with other domain developers to analyze, design, and implement the software products according to client specification.

- ❖ Worked on 5 different major projects teaming up in a group consisting of 3-4 other domain experts depending on requirements.
- ❖ Built Android Mobile Applications using Fragment API, RESTful Web Services, and other third-party libraries using Java MVC.
- ❖ Code review, testing, and documentation.

Education

MSc. In Computing and Data Analytics

Saint Mary's University

Aug 2018 – May 2020

Halifax, Nova Scotia, Canada

Bachelor's in Computer Engineering

Tribhuvan University

Dec 2011 – Dec 2015

Kathmandu, Nepal

Profile

[LinkedIn:](#)

http://bit.ly/STM_I

[GitHub:](#)

<https://github.com/Mattobad/>

Technical Skills

Programming Languages:

Python | Java | JavaScript

Data Science:

Data Analysis (NumPy, Pandas)

Data Visualization (Matplotlib, Seaborn, Plotly)

BI (Tableau)

Supervised learning (Linear Regression, Logistic Regression, Random Forest etc.)

Unsupervised Learning (Clustering, K-means)

Deep Learning (TensorFlow-Keras, Image Classification)

NLP (NLTK, Spacy, Genism, Sentiment Analysis, Topic modeling, Transformers, Haystack framework)

Model Deployment (Flask-API, Serverless API)

Other (Structured, Semi-structured & Unstructured data types, Time Series Analysis, Dash)

Cloud:

AWS (Serverless, S3, Lambda, Elasticsearch, Comprehend, AWS Machine Learning Services)

Azure (Azure Blob Storage, Container)

Others:

SQL | Bash | Docker | Git | GitHub Actions

Operating System:

Windows | Linux | Unix

Awards & Achievements

Innovation Challenge Halifax 2019, Sept-2019

Finalist- Ocean Category
Saint Mary's University

David Sobey's Annual Retail Hackathon, April-2019

Saint Mary's University (Runner up)

NS Open Data Contest, March 2019

Dalhousie University (Second Position)