Dip Kiran Pradhan Newar

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Education

University of Nebraska at Omaha, Omaha, NE Jan 2021-Dec 2022
Master's of Science in Computer Science GPA: 3.79
Tribhuvan University, Kathmandu, Nepal Nov 2014- Oct 2018
Bachelor's of Engineering, Computer Engineering First Division

Skills

Programming: Python, Java, JavaScript, C++, PHP, Go, MATLAB, Octave
Databases: SQL: Postgres, MySQL, NoSQL: MongoDB
Big Data/ML Tech.: NumPy, Pandas
Other Tools: Git, Docker, Redis, REST API, QGIS, ArcGIS, graphql, AWS
Web Frameworks: Django, Flask

Work Experience

Graduate Research Assistant(University of Nebraska at Omaha) **Jan 2021-Present**

- Wrote memory-efficient scripts to Automate the Detection and Repair of Cryptographic Misuses.
- Suggested the developer's Systematic Way of coding from GitHub opensource projects using the NiCad clone detector for given code fragments.
- Highlighted the code differences of Version Control System using ChangeDistiller and diff2html.
- Visualized the data flow inside the java file in tree format by integrating Eclipse Zest.

Software Engineer (Nepware Pvt. Ltd.) **Feb 2019- Dec 2020**

- Designed and developed the database and backend using Python Django for BIPAD (create alert of any natural and non-natural hazard) and deployed them on AWS using Docker with CI/CD pipeline.
- Researched and developed a secure attendance system software utilizing in-house networking devices by tracking the time employees are connected to wifi using Raspberry Pi as a server.
- Built a well-documented web application to track COVID-19 patients by tracing the trail of places traveled by infected individuals using data from the Nepal Government.
- Designed and implemented an algorithm that pre-process the disaster-related data from the CDRMP branch of UNDP Nepal by using Pandas and NumPy, and visualized them with Seaborn to generate pdf using xhtml2pdf in Python Django.

Internship (Paaila Technology) **Jan 2018- Feb 2018**

- Built custom web crawlers using Selenium to scrape data from multiple Nepali online news portals.
- Preprocessed Nepali text to extract verbs, prepositions, nouns, and others using Sklearn and Pandas.

Undergraduate Thesis Project

Casualty Information Extraction and Analysis from News

- Built custom web crawlers to scrape accident-related data from news portals.
- Used tokenization, POS tagging, regex, SRL, NER, and lemmatization using a lemmatizer from the Spacy library for data preprocessing.
- Built a data pipeline (ETL) to process textual data to a structured format and store it in the database.
- Performed visual data analysis using D3.js to create dynamic maps and charts.

Publications

- "Casualty Information Extraction and Analysis from News", In 16th International Conference on Information Systems for Crisis Response and Management

Certification and Training

- Crash course on Python by Google, Coursera
- Applied Text Mining in Python, University of Michigan, Coursera
- Machine Learning, Stanford University, Coursera