PRATIK SHRESTHA

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Education and Technical Proficiency

2016 **Bachelors of Engineering (B.E.) in Computer Science**, Kathmandu University
Relevant Coursework
Data Structure and Algorithm, Algorithm and Complexity, Operating System, Compiler Design, Artificial Intelligence
Languages
Python, Shell, LaTeX, C, C++, SQL

Work Experience

Nov 2016-Present **Associate Software Developer/Consultant**, LIS Nepal Pvt. Ltd. (A Yómarí Company)
- Provided technical support and consulted international clients on daily ETL batches.
- Coordinating with onsite team leads to develop BI solutions to reports financial insights using Oracle tools OBIEE, BIP and Microsoft Excel (VBScipt).
- Implemented a complete makeover of the company website to improve design, make mobile responsive and integrate vancancy post, submissions with email notifications.
Technologies: Oracle, Korn Shell, Python, Django

Jun 2016-Oct 2016 **Software Development Intern**, LIS Nepal Pvt. Ltd. (A Yómarí Company)
- Developed ETL solutions, prepared release notes and testing documents.
- Researched on and documented Oracle tool ODI (Oracle Data Integrator) Knowledge modules to migrate the system from Oracle to Teradata.
Technologies: Oracle, Korn Shell, Python

Leadership Positions

2016 **Organizer**, Kathmandu University IT MEET, 2016
2015-16 **Python Community Executive Co-ordinator**, Kathmandu University Computer Club(KUCC)
2013-16 **Communication Information and Marketing**, AIESEC in Kathmandu University

Achievements and Certifications

2014 **NCell App Camp 2014 Category Winner (Business Category)**
Pitched and presented Opinio Android Application.
2014 **Startup Weekend Kathmandu 2014 Winner**
Pitched and presented Opinio.

Interests and Activities

- Programming, Problem solving, Whiteboards
- Linux
- Artificial Intelligence, Mathematical Modelling and Natural Language Processing
- Music and guitar
- Cartoon, comics and movies

Projects

2014-16 **TheOpinio.co**
Aggregated analysis and insights of opinions over social media on product, service or business.
- Implemented social authentication using oauth2.
- Used Twitter streaming API, Twitter REST API for social media data.
- Generated various analytics along with sentiment analysis of tweets.

Technologies: Python, Django, MongoDB, json

2016 **Sentiment Analysis on Twitter Data**
Determining sentiment polarity (positive, negative) of tweets.
- Used Naive-Bayes algorithm to calculate sentiment polarity based on trained data-set.
- Determined performance by accuracy, precision, recall and generated confusion matrix.

Technologies: Python, SQLite

2015 **Nepal Quake Retweet**
A computerized real-time retweet mechanism for Nepal Earthquake 2015.
- Used Twitter streaming API, Twitter REST API for social media data.
- Recognized related tweets using Natural Language Processing.

Technologies: Python, json, requests

2015 **University Lecture PDF Search Engine**
An information retrieval system that searches lecture PDFs from top university sites based on the provided search queries.
- Crawled and scraped top university site for PDFs.
- Parsed contents, meta-data and processed it using Natural Language ToolKit (NLTK).
- Generated an inverted index.
- Used Pearson's correlation for ranking and recommendation.

Technologies: Python, Django, json, requests, MongoDB

2013-14 **Desktop Search Engine for Help Nepal**
A file-system search engine that searches based on keywords and file types.
- Probed and parsed contents, meta-data and standardized from files of different format.
- Processed the content using Natural Language ToolKit (NLTK).
- Generated an index and search a algorithm.

Technologies: Python, TKinter, SQL

2014 **Research on Sentiment Analysis in Music**
A research to provide measures to analyze sentiment polarity of music, recognize musical notations and chords from a music piece.
- Sampled and applied FFT to obtain a music piece in frequency domain.
- Applied music theory to the frequencies to obtain notations and chords.
- Implemented Naive-Bayes algorithm on chord patterns to determine polarity.
- Mapped music pieces in Russell's Multidimensional model and Thayers's Model.

Technologies: Python(scipy), Django, SQLite

2013 **Markdown to LaTeX Converter**
A script to convert Markdown to complex documentation language LaTeX.
- Used regular expressions to parse and translate source code.

Technologies: Python