

Project Synopsis on

# **Outsourcing to Nepal**



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## **Abstract**

Online freelancing has paved its way through the job market enough to create a new kind of labor market: The Gig Economy. The Gig Economy has made it convenient for both employers and freelancers to get their work done which comes beneficial for both employers and freelancers.

Advantages aside, budget plays an important role in choosing to hire freelancers. Thus, one of the reasons employers prefer to hire freelancers is to lower costs for their projects. There are lots of freelancing websites that have flexible payment policy for freelancer all over the world along with some websites limited to a specific country or region. We propose to build similar freelancing website for the people of Nepal where employers all around the world can hire Nepalese talents for lower price than freelancers in the most of the country.

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1. 3.1 Block Diagram of System

# Abbreviations

**API:** Application Programming Interface

**REST:** Representational State Transfer

**MERN:** MongoDB, Express, React and Node.js

**DRF:** Django REST Framework

**Seq2Seq:** Sequence to Sequence

**LSTM:** Long-Short Term Memory

# **Chapter 1 – Introduction**

With the growth of the Gig Economy, online freelancing has been more popular and beneficial than ever. There are numerous freelancing sites where freelancers can find freelance work and employers can find freelancers to hire like Upwork, Fiverr, Freelancer, etc. as of now. This project centers on development of a web app to give a platform for employers all over the world to hire freelancers from Nepal where they can expect lower price for quality work. It can be compared to Onlinejobs.ph, where employers can hire freelancers from Philippines, except for this project is for Nepal.

## **1.1 Problem Statement**

The people of Nepal should be able to work on freelance works and international projects easily while residing in the country. However, due to some reasons that has not been the case. One of the reasons is low preference of international freelancing sites towards Nepalese freelancers. In one of the top freelancing sites, Upwork, there have been many claims that the platform rejects most of the applicants that are from countries like Nepal. These popular freelancing sites take about 20% of the freelancer's earning and 20% is a very high commission rate. Another popular tendency is that most students, after graduating high school tend to go abroad for college with the intention of earning by taking part-time job while attending college. One of the most asked questions about online freelancing is about the payment gateway. Some sites support wire transfer directly to the local bank but with fee of the transaction. There could be a better and easier way to receive payments but unfortunately international money transfer platforms like PayPal do not have services in Nepal.

## **1.2 Objective**

This project intends to solve the problems mentioned in §1.1 Problem Statement. The low preference towards Nepalese freelancers is by definition tackled by our project since our platform only allows Nepalese freelancers to sign up. Our platform will take 5% of the freelancers' earning as commission dealing with high commission rate like other popular freelancing platforms. Freelancers are required to have citizenship certificate to sign up for the platform so that all the people including undergrad students can work and earn through the platform without having to leave the country.

### **1.3 Aim**

The ultimate aim of the project is to make online freelancing more flexible for Nepalese people and cause employers all around the world to easily hire Nepalese people for their tasks.

### **1.4 Motivation**

Most families are having a hard time earning a living forcing the family members to go abroad for foreign employment. More than 272 thousand of people left Nepal for employment in 2018/19 [1]. Likewise, students prefer foreign education so that they can earn while they attend college. These reasons are enough to motivate us to create a freelancing platform for Nepalese people so that they can earn from online freelancing and most of them won't be forced to be separated from their families to work abroad.

### **1.5 Scope**

The freelance works range from web development, graphic design, etc. to virtual assistant and data entry welcoming freelancers with high skills to basic skills to freely work on whatever they want. There is a good opportunity for people having varied skill sets.

### **1.6 Application**

Online freelancing is applicable from anywhere as long they have computer or even a smartphone with internet. Freelancers may stay at their home while they work or just visit a cafe and work there. Most of the freelancing tasks don't require freelancers to work at specific time, so they can work at any time they wish as long as they finish the task before their deadline. They can converse with their clients from the platform via text messaging, audio call or video call so that both of them are on the same page.

## **1.7 Feasibility Study**

This project is feasible from both freelancers' and employers' perspective. People are likely to sign up for the platform if they can earn a good income by working on freelance tasks with three most important factors that will be flexible for them: a) They can work whenever they want, b) They can work from wherever they want and c) They can work on whatever they want. These are the most critical factors that people inquire before taking on some work. As for employers, they are likely to hire freelancers from a specific country for lower prices than most of the country. Employers have been using similar sites like Onlinejobs.ph where they can hire freelancers from Philippines only.



## Chapter 2 – Literature Review

Commercial contractors have replaced employment contracts in many cases, as jobs previously performed by employees have been outsourced to freelancers, many of who have been ex-employees [2]. Remote work is a new-age concept of work. Freelancers are self-employed; they do not have a permanent work contract with an employer. They receive no fixed salary, but are paid according to the work they accomplish, usually they work on short-term assignment. Basically, jobs are of two types. First, the freelancer is paid on hourly basis, second method is on project basis. These days, large number of companies are hiring freelancers to perform their highly technical jobs.

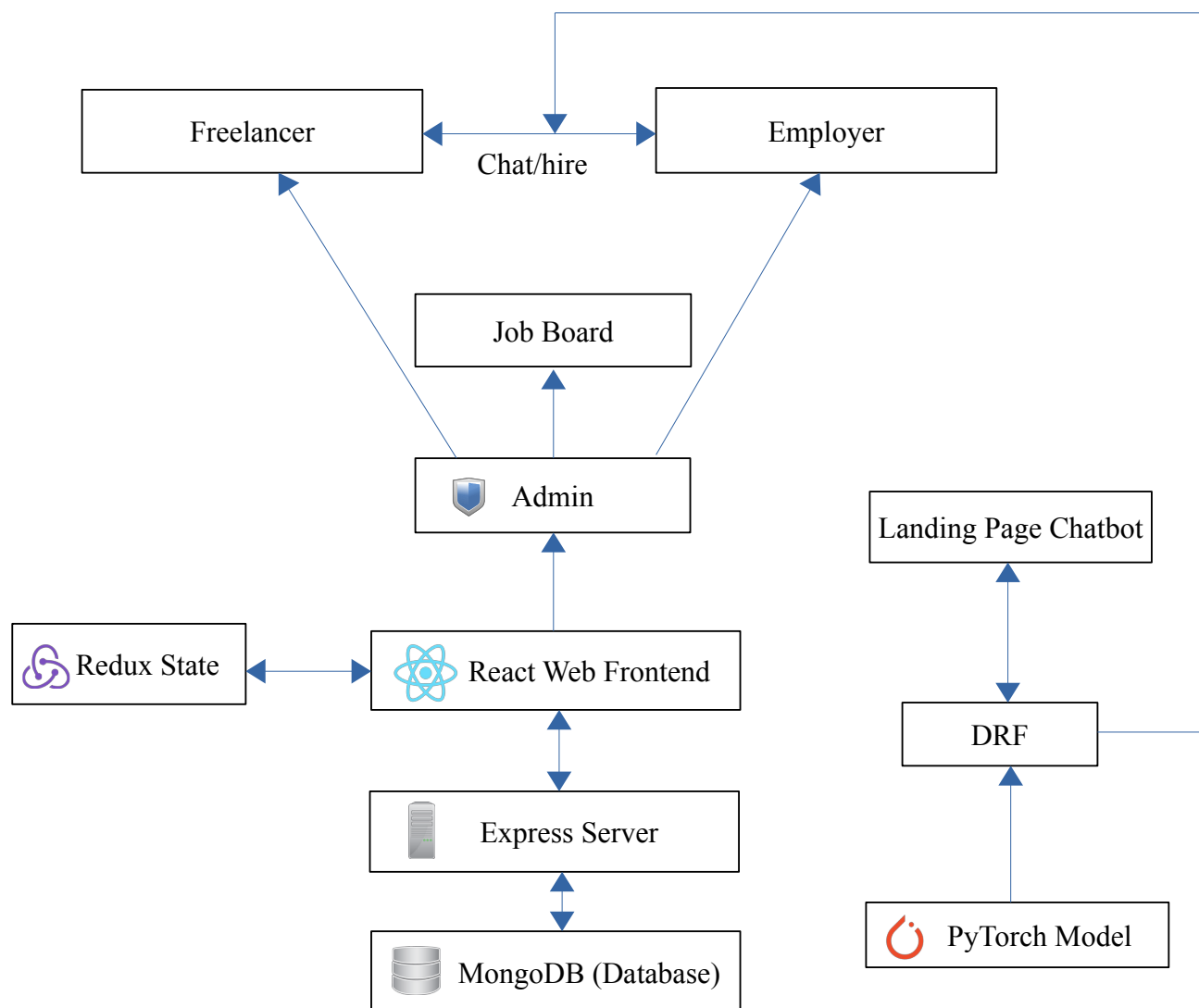
There are various websites available in freelance marketplace which offers jobs. The most popular freelance marketplaces are Upwork, Guru, Appen, and Freelancer, and the most popular categories of jobs are web development, programming, writing, translation, design, and multimedia [3]. First commercial freelance site, Guru, was launched in 1998, followed closely by Elance in 1999 and vWorker (formerly RentACoder) in 2001. Most of the freelancer are attracted to websites like Upwork and freelancer these days due to sheer numbers of jobs available, despite having high commission rate. Freelancer.com has around 6,932,691 professionals, \$1,043,490,561 valued projects were posted and 4,173,741 projects as per the press report of Jan 2013 [4]. Similarly, there were around 2.5 million registered contractors and more than 7,90,000 jobs posted in the first half 2012 according to odesk.com (currently Upwork) [5].

In the context of Nepal, most of the Nepalese freelancers have to depend on freelancing websites like Freelancer.com and Upwork.com to earn money though freelancing. It is not that these freelancing websites are in vain but the policy and the benefits are not made equal for all.

## Chapter 3 – System Design

This project is to be built using MERN stack with Django REST framework for AI Integration. The core backend of the app will be built using Express.js with MongoDB as database, which serves React frontend for users to interact. Django REST framework just serves as backend to run PyTorch model.

### 3.1 Block Diagram of System



## 3.2 User Models

Basically, there are three types of users: admin, freelancer and employer. But users can either sign up as freelancer or employer.

- 1 Admin: Admin inspects all the processes like signing up for a new account.
- 2 Freelancer: Freelancers can view Job Board according to their skill set and look for jobs they see fit to work on. They may submit proposal to the respective job request. If their proposal is selected by the employers, they may converse with the employers regarding the job and get hired.
- 3 Employers: Employers may view the list of freelancers and hire according their bio and resume or they may post job requesting explaining the job and what kind of freelancers they are expecting. They may talk to freelancers about the job and hire them if they suit the employers' preference. They are required to deposit certain percentage of the total amount in the platform to get the project started.

## 3.3 AI Integration

DRF (Django REST framework) will be used as backend to serve deep learning models for translation and chatbot written using PyTorch deep learning framework. Chatbot will use Seq2Seq model with LSTM by Sutskever et. al. [6] to classify intents. Translation will use pre-trained Big Transformer by Vaswani et. al. [7] to translate from English language to Nepali and vice versa. The pre-trained weights are from Duwal et. al. [8].

## Chapter 4 – Expected Output

With the completion of this project, we expect our platform to produce the following outcomes:

- 1 Better online freelancing experience: The freelancers and employers will have great experience with the platform while landing a freelancing task and hiring freelancers.
- 2 Exposure for Nepalese freelancers: Nepalese freelancers will get chance to expose themselves to international employers and take on international projects.
- 3 Excellent hiring for employers: Employers will be able to hire talents among Nepalese people.
- 4 Less commission rate: The platform will have 5% commission rate unlike other freelancing sites that have 20%, so that freelancers can take home more of what they have earned.
- 5 Fewer obligation for foreign employment: People will be able work on freelance tasks residing inside the country without having to rely on foreign employment forcefully.
- 6 Students freelancers: Students will be keen to earn while studying.
- 7 Expand freelancing business: This will hopefully motivate many people to start their own freelancing business not just limited to the platform but explore every other options they have to increase their revenue.

## **Chapter 5 – Conclusion**

The proposed project represents a major step towards online freelancing for Nepalese people and how to make it easier. Overall, both freelancers from Nepal and employers from all over the world can benefit from this. For Nepalese freelancers, they will be able to easily find freelance work suitable according to their skills and work on those projects. This will help them bring in good income without having to leave the country for employment. For employers, it will be easy for them to hire freelancers at lower price without the decrease of quality in their work.

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