Sushant Kafle

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Education

Tribhuwan University   **2011 ---- 2014**
IOE, Pulchowk Campus
Bachelor In Engineering
Department of Computer
Percentage: 80.64%

Plus Two(+2) in Science   **2006 --- 2007**
Golden Gate Int' College
Department of Physics
Percentage: 80.2%

School Leaving Certificate   **1995 ---- 2006**
Arunima Higher Secondary School
Percentage: 86.6%

Additional Courses

Data Mining
Big Data Technologies
Speech Processing
Natural Language Processing
RHCE Training

Grant

Full Scholarship for B.E. Program
Recipient of full scholarship for B.E. Program by Tribhuwan University, Nepal through a
national level competitive exam.

Academic Projects

1. Particle Viewer
Particle Viewer is a GUI for realistic particle-container interaction simulation and analysis. It uses particle physics/dynamics with appropriate shaders to simulate and render realistic particles inside/interacting a container.

2. Movie Recommendation System
A web-based client profile evaluation system that recommends its clients of possible movies that matches their interests. It uses Collaborative Filtering Approach based on Matrix Factorization technique.

3. Morphological Analyzer for Nepali Text
Morphological Analyzer provided word segmentation, POS tagging and word lemmatization for a sentences in Nepali. It is useful higher level speech/natural language processing of Nepali language.

4. 3-D Maze Design and Simulator
a 2D design to 3D renderer with its own geometric drawing, shading and transformation handles.

5. 3-D Chess with Network and Artificial Intelligence
A game of 3D chess with both Single player and Multiplayer functionalities. Single player mode is supported by its Artificial Intelligence whereas the Multiplayer mode is supported by network interactions.

6. Virtual Classroom
Virtual Classroom is an online studying platform where students can enroll to classes, submit assignment, get grades and discuss on problems.

7. Sale-City (PHP)
Sale-City is an advertising platform for Vendors to display their interactive sales to the users. Interested users get notified with all the information and whereabouts of the sale.

8. Digital Voltmeter using 8051 Programming
A digital voltmeter based on 8051 micro-controller.

9. Digital Clock
A LCD based digital clock using 8051 (AT89C51) micro controller.

10. Maze - A journey of the Sprite
Console based Maze game with level designing modules developed in C.

Non Academic Projects

1. EasyYatra – Application For providing whereabouts of Public Transportation.

A web -plus- mobile application to know the whereabouts of public vehicles inside the city. Unpredictability of public transport leading to hours of delay to the intended work led to the development of this service. It uses our designed GPS transmitter that pushes real-time data to our server and user queries our system via a SMS or a simple application query(for smartphones).

2. Kabach - A 21st Century Armour. (Violence Against Women Hackathon)

Kabach(translates to Armour) is an mobile based application that provides real-time rescue solution for VAW(Violence Against Women) actions. It has a simple interface that generates alerts to Nepal Police Department in-case of any VAW actions. The alerts can be triggered using a button push or a shake(if needed). A complaint system allows a 3rd party(witness) to generate an alert as well. The application could also generates and sends help messages in case of emergency.

3. 3D Rubiks Cube Simulator and Solver (Locus 2012)

"3D Rubik's Cube" is a 3D software that simulates the popular mathematical puzzle known to us as Rubik's Cube. The software allows user to interact with the Rubik's Cube and, in need, it also solves the Rubik's Cube from its state of input.

4. Parikshya (Startup Weekend Kathmandu 1st Edition)

Parikshya was the winner of "Startup Weekend Kathmandu" competition held for the first time in Nepal. Parikshya is an online entrance preparation portal where students take mock exams and get feedback via various visualizations such as learning curves, performances, ranking etc.

5. FindOut (Integrity Ideathon)

FindOut was the winner of "Integrity Hackathon" held in Kathmandu by Integrity Action with YIPL. FindOut is a Web Application build over HTML5 Canvas that uses interactive video plus game to educate people about integrity.

6. Polimeter (Leapfrog Hackathon 2014)

Polimeter is a crowd-sourced web-application to track promises made by high ranking officials, later used to evaluate officials based on their outputs of their promises. This application was given the Honorary mention by the judges in the Hackathon.

7. Memento (CityApp 2014)

Memento is a mobile application that can be used by travelers to capture their moments during travel, effectively, and save it all as a "**Stream**". This "**Stream**", representing all of their moments during a travel, could be saved and also shared across devices or on social groups. This would not only enhance their traveling experiences but also help future travelers to get authentic idea about the travel, including routes, best hotels to stop at or even best foods in the town. This application was intended to promote tourism in Nepal.

8. **Dependent and Independent Age-Groups in Nepal - Choropleth visualization. (Open Data Day Hackathon)**
A responsive web application using JavaScript to visualize Dependent and Non Dependent groups in the Map of Nepal. The data were scraped from Nepal's Census Report.

Awards

Academic Excellency Award (B.E Topper), 2011
Winner of Startup Weekend Kathmandu, 2012
Winner of Integrity Hackathon, 2013

Memberships

Nepal FOSS Community
Currently working as an activist and have organized various events regarding Free and Open Source Technologies.

Google Developers Group Nepal
General Member of GDG Nepal.

Work Experience and Research

Project Intern, Yomari Ptv. Ltd. 2014
Worked on the project titled "Interest Rate Prediction of Banks" which involves the use of data mining techniques and prediction models to analyze real time financial data to predict the values of possible Interest Rate(IR) of Banks in near future. The prediction models not only utilized the financial data, but also worked on sentiment results obtained from daily news from local news websites.

Tech. Intern, E&T Pvt. Limited. 2013
Worked on the "Particle Viewer" project which involved study of particle behavior inside a container. The challenge was to delineate and render the particles in a realistic way so as the non-expert could also understand and visualize it. Different approaches to effectively render particles (from Streamline -to- Particle based) were studied and different approaches of surface regeneration techniques on top of particle point clouds were implemented and tested as well. Also worked to develop a GUI based analyzing tool where the client could use different visualization and filter techniques (based on particle properties) to analyze particle groups as needed.

Summer Intern, Verisk IT, 2013.
Worked to optimize and automate Scrub-QC of the 'd2hwakeye' engine used by Verisk IT, also involved in different discussion sessions on Big Data Tech. and Distributed computing for optimization.

Software Engineer(Trainee), Yomari Inc., 2014 – Present
Working on RA Business Solutions and different reporting tools such as OBIEE and BIP for operational as well as analytical reporting. Also, working on ODI to extract and load data from RMS to target data warehouse.

Academic Service

Department Volunteer, DOECE Pulchowk, IOE, 2012 – 2013
Maintained Department's Website, also managed and updated Department's Blog.

Community Service, Leadership

Organized Inter(+Intra) College Quiz Competition for L.O.C.U.S.
Organized Open Movie Competition with I.O.E. F.O.S.S Community.

Qualifications

C/C++	Java	Python	Octave	Matlab	R
Django	Php	Javascript	CSS	HTML/5	
MySQL	Hadoop	PL/SQL			
Shell	Perl				