

Slesa Adhikari

Software Developer

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Skills

Languages: Python, C/C++, Javascript, C#

Graphics Programming with **OpenGL**

Image Processing/ CV using **OpenCV**

Scikit, Numpy, Scipy

ReactJS, jQuery, Sass

LaTeX, Bash Scripting, Git, Linux

Scrum/Agile methodologies, JIRA

Education

Master's in Computer Science, GPA 3.875

University of Alabama in Huntsville

2018-2020 (expected)

Graduate Research Assistantship

AAUW International Master's Degree Fellowship

AAUW International Master's Degree Completion Fellowship

Thesis: *Detecting Periodic Action Patterns in Videos*

Bachelor's in Computer Engineering, 78.6%

Institute of Engineering, Pulchowk Campus

2012-2016

Full merit based undergraduate scholarship

Ncell Excellence Award, Ncell Pvt. Ltd.

Ncell Scholarship Award, Ncell Pvt. Ltd.

Graduated top 10 among 700 students

Experience

Graduate Research Assistant

Global Hydrology Resource Center, NASA/UAH

May 2019 - Present

Data processing (python, numpy, zarr, xarray) of various earth science datasets

Optimized rendering speed of 3D web visualization of those large datasets

Created a user palatable interface and experience

Created RESTful APIs and deployed serverless framework to AWS Lambda using Terraform

Cesium,
Javascript
Python, Numpy,
Zarr, Xarray,
AWS, Lambda,
Terraform,
HTML, CSS,
Panda3D

Graduate Teaching Assistant

University of Alabama in Huntsville

August 2018 - May 2019

Grading, one-on-one tutoring of students and laboratory instruction

C,
Raspberry Pi,
ARM

Associate Software Developer

Logic Information System Nepal

November 2016 - May 2017

Design and implementation of data warehousing, reporting and archiving solutions for various international organizations including **Petco** and **Matahari**

Oracle,
Teradata,
Bash Scripting

Intern

Logic Information System Nepal

January 2016 - September 2016

Design and implementation of a Virtual Reality system that constructed a partial 3D scene from 2D image/s

C++,
OpenGL,
VR, Android

Projects

Video Repetition Finder	Detecting periodic action patterns in videos; thesis work for Master's degree program [Python, Keras, ConvNet, OpenCV]
Unity Crowd Renderer	Real-time crowd rendering (more than 10,000 3D animated instances) in Unity Game Engine with vastly improved performance (30 fps vs 4 fps) over existing tools [C#, GLSL]
Dimension223	Partial reconstruction of 3D scene from 2D image/s with VR support [C++, OpenCV, OpenGL, VR, Java, Android, Sockets]
BatSS	Blind Signal Separation (separation of a set of source signals from a set of mixed signals, without the aid of information about the source signals or the mixing process) using neural networks and parallel computation in GPU [Python, Numpy, OpenCL]
Document Classification	Natural Language Processing applied to the task of document classification done as a part of research work for identifying the coverage of technology news in Nepali newspapers; Naive Bayes Classifier and Support Vector Machines were explored [Python, Numpy, Scikit, NLP]
Yatra	Collaborative Filtering based recommender implemented in a travel web application [GMaps, Django, Python] <i>Winner, Yomari CodeCamp, 2016</i>
Flipped	2D platform adventure game for Android [Java, Box2D, Photoshop, Illustrator] <i>Finalist, Ncell App Camp, 2015</i>
Handsfree	Hand gesture input tool for PC [C++, OpenCV] <i>Winner, LOCUS Software Competition, 2014</i>

Grants/Awards

2019	AAUW International Master's Degree Completion Fellowship
2018	AAUW International Master's Degree Fellowship
2017	Ncell Excellence Award, Ncell Pvt. Ltd.
2014	Ncell Scholarship Award, Ncell Pvt. Ltd.
2012-2016	Silver Jubilee Scholarship, Indian Embassy.
2010-2012	Mahatma Gandhi Scholarship, Indian Embassy.
2016	Winner, Yomari CodeCamp, Yomari Inc.
2015	Winner, Software Competition in Open Category, LOCUS