

SAMYAM THAPA

Graduate student, University of Texas at Arlington

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OVERVIEW

I am a Graduate student, with Computer Science major, at University of Texas at Arlington. I am an international student with F-1 visa status. My academic interests are dynamic web development, building task-oriented interfaces and efficient algorithmic thinking. I am also interested in working with cloud computing and application development based cloud services.

EDUCATION

University of Texas at Arlington MS In Computer Science	Aug 2021 – Present GPA: 3.67
National Institute of Technology, Delhi B. Tech. In Computer Science and Engineering	Aug 2014 - Jun 2018
St. Xavier's College, Kathmandu, Nepal Cambridge International A-Levels	Aug 2011 - Jun 2013
Budhanilkantha School School Leaving certificate (SLC)	March 2011

TECHNICAL STRENGTHS

Languages	Java, SQL, AngularJS, Python, C
Python Libraries	Pandas, NumPy, Scikit Learn, Matplotlib, TensorFlow
Computer Graphics	Blender
Web	Groovy & Grails, JavaScript, JQuery, HTML/CSS
SDLC/Documentation	Agile/Scrum
Platforms/ Frameworks	Windows, UNIX/Linux, Spring, Grails, Cura, Prusa3d

EXPERIENCE

**Software Engineer Deerwalk Inc., Lexington, MA |
Kathmandu, Nepal**

Jan 2020 – May 2021

Performed data analytics and provided integrated informatics and actionable healthcare data from raw patient data. This supported period-to-period comparisons and trend analysis.

Developed reporting, and search modules based on US healthcare data and implemented its exports using various APIs (MS Aspose Report).

Designed and developed modules in Java/Groovy and also in AngularJS that read the data from Web-Services (RESTful Services).

Worked in Grails framework and User Interface implementation along with Front-End full-stack development of the application in JavaScript/jQuery. Data Visualization done using Highcharts and D3.js.

Worked in AWS tools such as AmazonSQS for queue messaging, Amazon CloudWatch for application log monitoring, Amazon CodeCommit for adding files to git and merging to master from separate branches. Kibana was also used for application log and parameters tracking.

**Associate Software Engineer, Deerwalk Inc.,
Lexington, MA | Kathmandu, Nepal**

Jan 2019 – Jan 2020

Analyzed existing code-base in java/groovy. Bug fixes. Ensured that the quality meets the requirements and the implementation was complete within the deadline.

**3-D Prosthetics manufacturing trainee E-nable
Nepal, Kathmandu**

Jun 2018 - Sep 2018

Studied about preexisting prosthetics designs for arm (named Alfie) and hands (named Pheonix) from team Unlimbited.

3-D printing training: setting up the printer which included base plate levelling, material knowledge about the types of plastic; their melting nature and use cases, using supports while printing hollow structures, the speed of the nozzle and the viscosity of the plastics to be used in different cases, etc.

3-D modelling training: use of Blender to modify the original prosthetics design to fit the measurements of different recipients.

Developed a recipient registration system that helps keep track of the recipient's personal information, measurements and consent in a database.

PROJECTS WORKS

Plan Analytics, US Healthcare Data Analytics, Deerwalk Inc., Jan 2019 - May 2021

A team project. My major contribution has been in developing Report manager, a Reporting application developed for cross application report exchange. RestAPI widely explored and the reports generated in Microsoft Aspose. My other roles included creating a drillable dashboard that helps client to get overall insight of application from one place, re-factor existing web services making it thread-safe and externalize configurations, and, make backend service for Export isolated from front-end.

Executive Analytics, US Healthcare Data Analytics, Deerwalk Inc., Jan 2019 – May 2021

Another team project, built in AngularJS to show customized insights of Plan Analytics in shortened format for the ease of executives. My contributions here include building a dynamic dashboard selection and personalization module.

ZEUS, Interactive Chatbot, National Institute of Technology, 2018

Built a voice assistant for windows using Google's voice-to-text converter, python pyttsx and espeak packages for text to speech conversion, WolframAlpha knowledge database and python for window functions.

Rankster, Cricket players' database web application, National Institute of Technology, 2016

Designed a cricket ranking website for 2nd year DBMS project using HTML, CSS, PHP and SQL. The database of players' attributes was maintained using SQL and was extracted using PHP. The website was hosted locally using XAMPP. The rankings were based on various parameters set by myself.

Nepalese vehicle number plate recognition system, University of Texas at Arlington, 2021

The main objective of the project is to create a vehicle number plate recognition system using lighting controlled video/images of various types of auto-motives such as car, motor bike, lorry, tuktuk, etc. running on the streets and roads of Kathmandu, Nepal and finally categorize them into odd and even number plates. Each task of plate localization, character segmentation, and numeral recognition uses various image processing algorithms as well as neural network based models as provided by different python and

TensorFlow libraries. The automated system utilizes numeral image data extracted from the internet, self taken vehicle images from parking lots, and regular traffic flow videos taken from YouTube for training and testing.

EXTRA-CURRICULAR AND OTHER INVOLVEMENTS

Winner of Inter Branch Football/Soccer Tournament (2014 and 2018) at National Institute of Technology (NIT), Delhi

Winner of Short-put event in Sports Fest 2014 at NIT Delhi

Member of Arts Club 2016-18 at NIT Delhi

Community Service including giving out clothes in various districts of Nepal during and after the 2015 earthquake of Nepal, scholarship to a needy student at Bloom School Nepal, provide occasional dinner service to orphans at Pranavananda Ashram Kathmandu, organizing charity futsal tournaments, etc. as one of the founding members of Kathmandu based NGO ‘Apar Foundation’ since 2012.

Member of UTA Cycling club, 2021.

REFERENCE

Dr. Anurag Singh	Assistant Professor, Department of Computer Science and Engineering, National Institute of Technology, Delhi
Dr. Vinay Shankar Pandey	Assistant Professor (Physics) and Head, Department of Applied Sciences, National Institute of Technology, Delhi
Dr. Shriraj Shrestha	Associate Professor, Orthopedics Department, Specialist in Arthroscopy & Arthroplasty Clinic, KIST Teaching Hospital, Kathmandu Nepal Medical Council No. : 3732
Er. Biswas Lohani	Sr. Engineering Manager, Deerwalk Inc., Nepal