SAMYAM THAPA

PhD student in Computer Science, University of Texas at Arlington

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OVERVIEW

PhD student in CS in University of Texas at Arlington, with a research focus in Computer vision.

EDUCATION

University of Texas at Arlington Aug 2023-Present
PhD In Computer Science **GPA**: 3.8

University of Texas at Arlington May 2023
MS In Computer Science **GPA**: 3.8

National Institute of Technology Delhi June 2018
B. Tech. In Computer Science and Engineering

TECHNICAL STRENGTHS

Languages	Python, Java, SQL, C
Python Libraries	Pandas, NumPy, Sklearn, Matplotlib, TensorFlow, Keras
Computer Graphics	Blender
Web	Groovy & Grails, Django, JavaScript, Jquery, HTML/CSS
SDLC/Documentation	Agile/Scrum
Platforms/ Frameworks	Windows, UNIX/Linux, Spring, Grails, Cura, Prusa3d
Cloud Platforms	Docker, Google Cloud Components, AWS

WEBSITE/PORTFOLIO

Personal website https://tsoprano.github.io/

ACADEMIC EXPERIENCE

Graduate Teaching Assistant - Machine Learning (CSE 6363), UT Arlington **Aug 2023 - Present**

- ✧ Grading exam papers and project works done by the students taking the course.
- ✧ Conducting meetings with the students for class materials, exams and project work reviews.

INDUSTRIAL 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.

Associate Software Engineer, Deerwalk Inc.,

Lexington, MA | Kathmandu, Nepal **Jan 2019 – Jan 2020**

- ✧ Analyzed existing code- base in java/groovy. Fixed bugs, ensured that the quality met the requirements, and the implementation was complete within the deadline.

3-D Prosthetics manufacturing trainee, **Jun 2018 - Sep 2018**
E- nable Nepal | Kathmandu, Nepal

- ✧ Studied about preexisting prosthetics designs for arm (named Alfie) and hands (named Phoenix) from team Unlimbited.
- ✧ 3-D printing training: setting up the printer which included base plate leveling, 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.

SELECTED PROJECTS WORKS

Head pose estimation, University of Texas at Arlington, **2022**
A Mediapipe based application for estimation of direction of the human face gaze on a camera.

Django Blog web app, University of Texas at Arlington, **2022**
A blog style of an application, built on the Django framework, where different users can write different posts, where each post belongs to a specific category/topic, and users can follow such categories. Users can comment on, and up-vote/down-vote the posts and the comments on them. The app is deployed and hosted on Google App engine, uses Cloud MySQL database and Cloud Storage for data persistence.

Soccer match result prediction, University of Texas at Arlington, **2022**
Prediction of scores of English premier league matches (2005- current) using SVM and XGBoost.

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 of 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.

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. Rest API widely explored and the reports generated in Microsoft Aspose. My other roles included creating a drill-able 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 back-end 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 Chat-bot, 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, Wolfram Alpha knowledge database and python for window functions.