DISHAN ANUPAMA NAHITIYA

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CAREER FOCUS

Software engineer with a background in machine learning and deep learning, passionate about solving problems. Proven track record of proper documentation, maintenance, and upgrades. Seeking a full-time opportunity as Data scienstist.

EDUCATION

Master in Science in Computer Science (CIS)   **August 2018 - May 2021**
Kansas State University   *Manhattan KS*

Bachelor in Science Computer engineering (ECE)   **August 2012 - December 2017**
Kansas State University   *Manhattan KS*

WORK EXPERIENCE

Graduate Research Assistant   **August 2019– May 2021**
Kansas State University   *Manhattan, Kansas*

- Research computer-based approaches in helping agronomists, scientists, and farmers based on real-world scenarios affiliated with the area of agriculture.
- Analyze large amounts of soil-related data collected from agronomy fields to identify patterns by using statistical, machine learning, and deep learning approaches.
- Developed microcomputer systems that can transfer images, geolocation, and timestamps from the field to a remote server.
  Technologies: Raspberry pi, hologram API, and Ada-fruit GPS tracker

Graduate Teaching Assistant   **January 2019 – May 2019**
Kansas State University   *Manhattan, Kansas*

- Teaching assistant for the computer architecture, systems hardware, instruction sets, addressing modes, Kernel level programming in C, etc.
- Responsible for instructing students in and held weekly office hours to solve any problem related to computer architecture.

Full Stack Developer intern   **June 2016 – Aug 2016**
Netapp. inc   *Wichita, Kansas*

- Revamp NetApp's global technical support management web tool and ticketing dispatcher.
- Collaborated with coworkers and NetApp clients to hash out the design flows and improve the functionality of the ticketing dispatcher tool.
  Technologies: Jquery,Vue.js,Bootstrap   Backend- PHP, MariaDB

Web application Developer - Kansas State University   **July 2015 – November 2018**
Kansas State University   *Manhattan, Kansas*

- Develop, promote, enhance, and support the Housing and Dining services web application and the services they offer.
- Develop web applications and services which are utilized by the staff and the students in housing and dining services for day-to-day activities.
- Good working experience in agile methodology, which involved scrum Meetings.

Network Research Associate Kansas State University   **June 2017 - October 2017**
Kansas State University   *Manhattan, Kansas*

- Volunteer research on minimizing the security threats in Software Define Networking (open flaw) in computer networking.

PROJECTS

Quantifying soil cover web application base on image of a soil cover
- Train a neural network model to identify soil, plant, and stubble on an image from a crop field without human interference.
- Gathered 3800 images from Kansas crop fields and labeled data sets into classes using the Otsu algorithm and MATLAB image labeler.
- Train the model using segnet structure and deploy the trained model using Dash Plotly (Combination of flask and react) web framework and Digital ocean droplet.
  IP address: 134.122.25.95

Crop characteristic finder by using the image and live mesonet station data.
- Kola (green in Sinhala) is an image analysis web tool that helps to identify crop properties by using the RGB layers in each pixel of an image by utilizing program algorithms.
- Help agronomists, farmers, and scientists by reducing in calculate canopy cover, crop coefficient, etc. by hand. Haversine was utilized to get the distance in stations and Kansas mesonet API.

Data visualization in soil respiration data.
- Analyze the vast amount of soil respiration data with machine learning techniques and visualize them. Understanding Daily CO_2 emissions and patterns.
  K-means.

Local binary pattern image classifier
- Developed image classifier utilizing local binary pattern transformation technique and analyzing the divergence of Kullback Leibler divergence.
  Technologies: python, pandas

Crop field data collector
- Build a microsystem that can gather weather and image data by transferring data to the server as a base64 string and location and store in servers.
  Technologies: **C/C++ based Raspberry pie Hardware: stm32F4 discovery board**.

TECHNICAL STRENGTHS

Programming languages	Python, JavaScript, PHP, SQL, C#, C, C++, HTML, CSS, Java
Databases	Oracle, MySQL, PostgreSQL, MariaDB, Sqlite3, MonogoDB
Web interfaces	Node, Django, React, Plotly dash, ADO.NET, Angular JS
Machine learning	Scikit-learn, Tensorflow, Pytorch, Tensorflow js, ONNX
Other	Pyspark,Scala,Hive,Ajax,SSO,REST, GitHub, Gitlab, Hadoop
Cloud/servers	AWS,Azure,Google cloud, Digital ocean droplet,gunicorn server
Tools/Libraries	Anaconda, Google colab,Tensorflow,Pytorch,Tensorflow JS,P5

EXTRA-CURRICULAR ACTIVITIES

- Vice President(2019/20), Treasurer(2012/13), Sri Lankan Student Association K-state
- Fundraising coordinator of the Rotaract Club 2017(College version of Rotary)
- Participated in Sanskriti organized by the Indian student association. (2015-2018)
- IEEE in Kansas State University (2017), Open House participation.
- Kansas State University ICC Badminton championship men's(2016/2018) – 1st place
- Robotic Competition, Computer And Electrical Department at K-state (2013)-3rd place
- Captain of Intramural Soccer Team, NSA, Kansas State University (2015/2016)