Shivam Bhandari

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EDUCATION

University of California, Davis
B.S. Computer Science, Minor in Statistics *June 2024 (Expected)*
GPA: 3.75
Certifications: Deep Learning Specialization – DeepLearning.AI *January 2023*

TECHNICAL SKILLS

Languages and Frameworks: C++ , C , HTML , CSS , JavaScript , Python , React.js , Node.js , Tensorflow.js , Pytorch
Others: Git , Notion , AWS , Linux , Jira

EXPERIENCE

AI Vision Food ***Davis***
Machine Learning Intern *April 2023 - Present*

- Collected and annotated 300 images of 2 classes of insects using CVAT.ai.
- Programmed an image resizer to adapt to the Res-Net50 model and performed data augmentation by applying geometric image transformations on training data to reduce overfitting.
- Implemented transfer learning using the ResNet-50 model to overcome the bottleneck of a small dataset and to reduce training time. Used a confusion matrix and learning curves to show an accuracy of 96%, which was a 23% improvement from the previous particle counter.
- Working on deployment to the Smartprobe App on the App Store and increasing classes of insects.

HackDavis ***UC Davis***
Director *September 2022 - Present*

- Oversaw the planning and execution of 3 workshops for 100+ students. Reduced merchandise costs by 30% by negotiating and generated $5000 in revenue and sales.
- Analyzed data from previous hackathons and provided data visualizations to the board to target students from specific majors leading to an increased attendance by 20%.
- Implemented new marketing and outreach campaigns via social media platforms (instagram, twitter, and discord) to help increase attendance in workshops by 50% and increase merchandise sales by 15%.

Cornische ***Remote***
Full Stack Developer Intern *March 2022 - July 2022*

- Developed the frontend and backend of a networking platform for professors and research students using React, HTML and CSS and collaborated with the UX-UI designers to develop and maintain the website.
- Worked as part of an Agile SCRUM team in the planning and execution of technical solutions.
- Designed asynchronous API calls, built, and deployed lambdas on the cloud for alpha testing.
- Created an efficient, extensive schema to utilize AWS DynamoDB for different types of data needed for users, labs, contracts, and categorized depending on privacy, fields, etc.

PROJECTS

GREENVISION – WINNER HACKDAVIS 2022 – SWIFT, MICROSOFT AZURE,KAGGLE

- iOS app for segregating waste into different categories and its disposal using the camera on your phone.
- Collected and labelled 100 images of 20 different classes and used Kaggle for additional images.
- Used Azure Custom Vision to train the model and deployed for live prediction using CoreML and Vision.

MENTOR MATCH – PANDAS, PYTHON, COLAB

- Implemented a recommendation algorithm using clustering to match mentors and mentees together based on age, areas of interest and majors and other factors. Implemented a feedback system using a correlation matrix to improve matches based on user interaction (yes, no, unseen).

AMERICAN SIGN LANGUAGE CLASSIFIER – Python, Colab, Scikit Learn and Pandas

- Convolutional Neural Network Project to classify ASL as a corresponding English Letter with 95% Accuracy using the MNIST dataset on Kaggle.

TEXT EDITOR – C++

- A text editor in C++ with the ability to scroll, move cursor, edit, undo, redo, insert, find, and replace.

USER LEVEL THREAD LIBRARY – OPERATING SYSTEMS - C

- Implemented a user-level thread library for Linux. Library provides a complete interface for applications to create and run independent threads, with preemption and thread synchronization using semaphores.