Aditya Krishna

(425)-420-6918 | Personal Page | adkris1002@gmail.com

Overview

I am a driven undergraduate student aiming to develop a strong foundation in machine learning, signal/image processing, and data science for applications in environmental and wildlife conservation.

Education

University of Washington Seattle, WA

Bachelor of Electrical Engineering *Expected June 2024*

- GPA: 3.73
- Dean's List Scholar: Autumn 2020 and Spring 2021

Experience

Undergraduate Research Assistant September 2021 – Present

Echospace @ UW *Seattle, WA*

- Working under lab's principal investigator on the Union Bay Natural Area Bat Project described below.
- Participating in monthly briefings on academic journals related to oceanography, data science, machine learning, and acoustical signal processing.
- Attending weekly project demos offered by colleagues on data science, acoustical monitoring, and oceaonography.

Software Development Intern June 2019 – Aug 2019

HCL America Inc. *Redmond, WA*

- Assisted employees in developing a software application that employed Regular Expressions and Natural Language Processing (NLP) libraries to extract key candidate information from resumes to establish an efficient method for matching candidate profiles with the company's desired job placement.
- Developed experience in Python, StanfordNLP, RegExes, Pandas, and Amazon Web Services such as DynamoDB, S3, and Amazon Cloud, where the application ran.
- Demonstrated communication and led weekly Scrum meetings with the manager to provide project demos.

Projects

Union Bay Natural Area Bat Project | *Audiomoth, RavenLite, Python 3.8* September 2021 – Present

- Plan to use machine learning and neural networks to detect, classify, and learn about the foraging and social behaviors of bats by their echolocation call activity.
- Providing weekly project updates to the supervisor of this project, Dr. Wu-Jung Lee.
- Deployed Audiomoth sensors twice a week to collect field data on bat echolocation at multiple locations in Union Bay Natural Area.
- Using RavenLite audio-editing software to tag echolocation data represented as spectrograms for data pre-processing and model training before applying deep learning methods.

Spectrogram Generator | *Python 3.8* February 2021 – March 2021

- Explored libraries like PyAudio and SciPy to build an application that converted .wav files into spectrograms for data analysis.
- Developed an understanding of how fast Fourier transform (FFT) is applied to sound files to produce spectrogram representations.

Technical Skills

Languages: Java, Python, Arduino C/C++
Developer Tools: Git & GitHub, Eclipse IDE, PyCharm IDE, Spyder, PureData
Libraries: StanfordNLP, Pandas, SciPy, NumPy, PyAudio
Applications: RavenLite, Audacity, Blender 3D Modelling