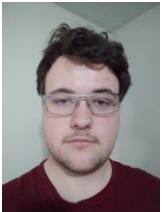Jun 3rd, 2022

Introduction

Archipelago is a private company in Victoria which provides fisheries monitoring and environmental consulting services. They are looking for a program using an object detection model that could automatically identify events from video to save time when reviewing and giving better information to their clients about the status of the fishery boats. Our team, simply called Team Archipelago, is working with Mark Sudul to explore the technology of training and using Neural Network software to automate most of their review process.

Project

The goal of Archipelago projects is to detect and track onboarding and offboarding objects from the fixed camera video using a machine learning model and generate an output file of the timestamps and state of the object as offboarding or onboarding. Machine learning takes a lot of time to develop and to be used in practical environments and is becoming a large part of modern and future tech in the world. Working on this project gives a good perspective on what to see in tech in the future.
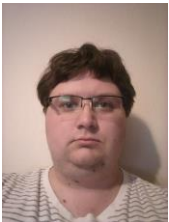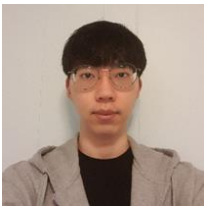
Team Members

Alexander Bos

I am Alexander Bos, a Camosun student in my second year of the Information and Computer Systems program. I am experienced in Front end frameworks like React, and back-end languages like Node.JS, and python. I have used Unity, with C#. I have experience learning to use Oracle and manage the database. Other languages I have used are C++, Java, and Swift. I have a primary goal of working as a software engineer, or back-end developer as I do not lean too heavily into the visual design of applications as much as the number-crunching high-performance data software.

Austin Garat

My name is Austin Garat. I am a Camosun student in my second year of the Interactive Media Developer program. I am experienced in HTML, CSS, JavaScript, React, Node.JS, Maya, Unity, C#, Oracle, technical writing, Adobe Illustrator, Adobe InDesign, and iOS. I am interested in a career in animation, game design, or CGI while being open to any field where I can be of assistance.

Junghyeon Cho

My name is Junghyeon Cho. I'm a second-year student in Camosun's Information and Computer Systems program. I fulfilled my military duty in South Korea and came back to Canada to continue my study. I learned HTML, CSS and JavaScript in the first year and am able to create web pages. Also, I learned some other languages Java and Python. In the second year, I learned more about front-end skills like React library and back-end skills like NodeJS. I also learned some data management skills through Oracle and MongoDB. I try my best to become a full-stack developer and hope to get a job in the web app industry.

Conclusion

On behalf of Team Archipelago, we thank our sponsor for the opportunity to explore the field of Machine Learning and developing object detection models, along with the hands-on effort put in by our team members for labeling data, studying a new language, and experiencing the Agile workflow through the Azure Dev-ops platform.