

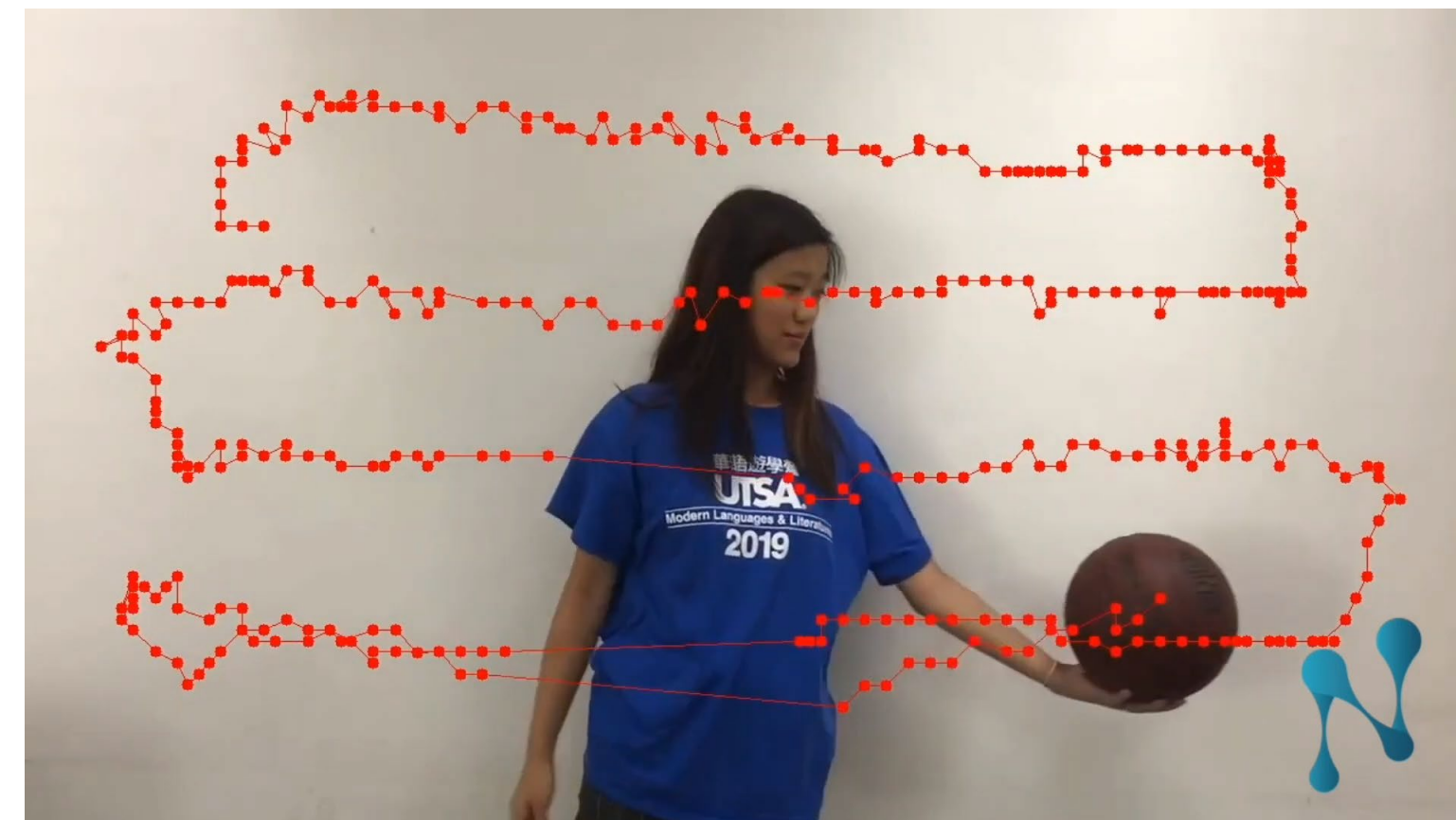


# Internship at the Nordling Lab Ivana Chen, Mechanical Engineering, 2022

Professional  
Development

## SUMMARY

*I had the opportunity to intern at the Nordling Lab in the summer of 2019 to work on a project relating to artificial intelligence. The mission of the Nordling Lab is to develop problem-specific software for commercialization while learning skills for actionable knowledge. With limited computer programming experience, my goal of the internship was to become familiar with the process of how artificial intelligence works and be more proficient in programming. The goal of my project at the internship was to build a deep learning model to perform object localization of basketballs in a video. After diligently learning about machine learning and persevering through multiple restarting of the program, I accomplished my goals. I successfully built a model using Region-based convolutional neural network (R-CNN) which predicts the location of basketballs in the frames of a recorded video.*



## SPICES

*I worked collaboratively with colleagues in a research laboratory in an academic setting alongside mechanical engineers on projects that affected the entrepreneurial potential of the Nordling Lab.*

## HERBS

*I practiced resilience in producing a successful neural network. I received support from other engineers with their help in debugging the program, as well as provided support to their projects by helping in similar ways.*

## LEARNING OUTCOMES

*I gained self confidence in computer programming after figuring out a successful program before the last few days of my internship and created a presentation. I had to work in a team setting by working on my individual part which was the majority of the code, while also coming together with other people to complete the mini tasks of the project.*



## IMPACT

*Working at the Nordling Lab and at the National Cheng Kung University allowed me to network with engineers from around the world such as Germany, Honduras, Sweden, Japan, Malaysia, and much more. I learned to be unafraid to ask for time and help at the workplace. I learned about the technical aspects of programming for artificial intelligence, specifically Keras and TensorFlow.*

## ADVICE

*Do not be afraid to ask for help if you are stuck on a project because that person may be able to solve the problem in a fraction of the time.*