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As an undergraduate in my home country of Taiwan, I majored in communications and successfully landed a highly coveted job at a TV broadcasting station. I was a production assistant working behind the scenes of live concerts and live sporting events. One of my responsibilities was to generate sports data and statistics to stream in real time to the public. My resources were limited to traditional systems and excel. I loved working in media fields but thought that this could be done differently and more efficiently. Therefore, I began to explore statistics and data analysis. With no background in this, I left my home country to pursue this evolving passion and interest.

During my graduate studying period, I partnered with Dr. Owrang working on triple-negative breast cancer (TNBC) capstone project. With the understanding for his previous breast cancer research, I designed and build further research with machine learning techniques independently. This project aims to discover patients' survivability based on selecting features, optimizing classifiers/clusters, yet then visualizing the results. In order to find out the best data analytics techniques, I worked on the data through Python, R, and Weka. We provided insights into TNBC prognosis for doctors and patients.

In addition, I obtained extensive internship experience at AU Optronics (AUO) last summer. I was responsible for data mining, feature engineering, and topic modeling for analyzing textual data. I partnered with a mentor (manufacture team) and other interns (machine learning, anomaly detection, or image detection) from different departments. We are responsible for data processing and data modeling trying to prognosticate potential problems before the manufacturing machine broke. As the first person who imported textual data analytics techniques, I designed and built the data infrastructure to run the program. We came up with solutions that increase the TFT-LCD (display array) manufacturing accuracy from 95% to 98%. Although the manufacturing company seems to be too far away from my background, I did find great connections between AUO and graduate studies in natural language processing (NLP). After I finished analyzing the data and creating data infrastructure, I produced daily visualization reports. Which provides managers from different teams the insights of predicting potential problems. We believe better prognostications or reacting strategies help reduce the defect rate and producing costs in the manufacturing line.

As a whole, my abilities are rooted in a master's study in Data Science with a concentration in computer science from American University. I attribute my success in graduate courses taking, project research, internship experience, and on-campus tutoring job. Moreover, I believe my personality has also played a major role that develops my ability to succeed in this career. My background in the undergraduate major of communications management and two years of full-time job experience working behind the screen as a production assistant supported me to work in my favorite field of media industry with a fast-paced and high-intensity environment. I can deal with the pressure logically, I prefer practically provide insights before making decisions, and I am extremely analytical, data-oriented, and calculated.

I am grateful for your time reviewing my statements. I am eager to turn my knowledge to providing supports into actionable growth strategies in data science fields. I believe my master's study and data engineering internship experience will ensure my success in this role.