

April 16th 2020,

RE: Enrique Alvarez Teaching Evaluation (Fall 2019 ECE 487/687)

Once in a lifetime a student comes along and transforms the way education is viewed. Enrique is that student.

Enrique is my PhD student working in the area of machine learning for a biomedical application, but he has always exhibited a keen interest in how students learn. I am blessed that of my five graduate students, all are interested in better learning for students. So, I formed an education team with these students and Enrique was the spark behind that effort. He is prolific in his work to develop a custom electronic learning management system that he **coded himself**. He established an introductory course on Udemy. He was foundational in how to educate students based on their ability to produce innovation. He led the class, with me on the sidelines, and the students saw him as the prime educator.

ECE 487/687 was a class we thought would have about 10 students. The demand was so high that we had 36 students from two universities, and students were located across the US from California to Delaware and points in-between. Enrique was up to the challenge and devised methods to accommodate in-class students, on-line students, asynchronous and synchronous video students, and he did so “on the fly” constantly innovating and never panicking. One student innovation team actually had their manuscript accepted for an American Society of Engineering Education conference describing how they produced innovation with in-class, on-line, synchronous and asynchronous video students using the tools Enrique provided them.

Based on his work in ECE 487/687, he has published or is publishing numerous conference papers and journal publications. He was the lead author on a conference paper that won best student paper award at a national conference last October. He and his team were invited to another University to describe the innovation-based-learning model, that program is ranked 5<sup>th</sup> in the world for innovative engineering education, but they wanted to hear from Enrique and the team.

I can go on about his kind and nurturing approach to students and his willingness to reach them, about his active learning techniques, or about his development of a new educational movement of producing external value as an assessment technique, but I want to sum this letter up with the following two sentences.

Enrique is one-of-a-kind gifted engineer and educator and it has been my privilege to know him and count him as my colleague. He excels at leading students in learning – the best I’ve seen.

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