



James Ren

**B.S. in Mechanical Engineering (2014)
D-Terra Solutions, Powell, OH**

Describe your overall duties/responsibilities as a Product Development Engineer:

As a Product Development Engineer, I have the opportunity to work on various types of products in which our company has been consulted, such as automotive parts, consumer products, industrial equipment, etc. Projects typically last about 1 – 2 years, so I find a lot of variety in work. My daily responsibilities include developing Solidworks models, creating test plans, conducting prototype tests, refining the manufacture processes, presenting our idea and concept to customers, etc. My ultimate responsibility is to help customers achieve efficiency and increase their profit through reducing the cost of production and accelerating the speed to market.

Explain the skills/abilities that are required for being successful in your role:

In my opinion, I don't think there is one or even two specific courses that will help you be successful in your career. College is more about teaching you how to think and approach solving problems. Engineers working at my company need to adapt into different roles; it's critical for us to not only be innovative and efficient as a design and manufacture engineer, but we also need to present our ideas clearly to customers as a consultant. Therefore, engineers need to not only be the technical expert to solve the problems and stay productive on projects,

but they also must communicate with people professionally, translating their idea and concept into clear and concise presentations that customers can understand.

What advice would you give to students who are considering majoring in Mechanical Engineering?

Consider learning more about the FE (Fundamentals of Engineering) exam. There is a NCEE Reference Handbook for people who plan to take the FE exam. There are over 250 pages of equations and formulas which cover almost every course you will learn in your undergraduate degree. Whether you are planning to take the FE exam or not, I'd recommend reading it. Another piece of advice is to collaborate and seek help from your classmates. Unless you are a genius, you are unlikely to finish the degree by yourself. I spent the first two years building friendships and forming study groups. These same classmates will be a big help to you during your senior year.

