

# Daniel Villarreal, Mechanical Engineering Major

Senior: California State University, Sacramento

Internship Focus: Project Design



## What projects are you currently working on?

So far I've worked on a few different things, but mostly I've been using AutoCAD to make designs and drawings for a Veteran Power Infrastructure (VPI) fire hardening job in Pollock Pines, CA. This project will underground a stretch of overhead power lines along Highway 50 and add #7 boxes along the path. We are looking at multiple ideas so I'm designing each on AutoCAD and submitting a Review of Material (ROM) pricing.

## What's something new you have learned in the last two weeks?

Prior to this internship I had not touched AutoCAD. Now I am decently proficient at the software. I've been able to step up for a team member who is injured and unable to complete a project. I've also learned about the entire design process and the finer details involved with that.

## Is there a particular experience that stands out to you so far?

Luis Ascencio, a drafter in the Engineering department, has been extremely patient with me when learning AutoCAD. He's explained everything super clearly and helped me learn a software that is usually difficult to pick up and use. He has also answered over 500+ questions of mine so far while managing to get his own work done.

## What do you look most forward to working on during your internship?

I really enjoy working on project designs and submittal packages using AutoCAD to map out projects for the construction crews. So I look forward to continue building my knowledge on the process.

## What skills/experience do you hope to gain by the end of your internship?

I'd love to take on a project and be able to work on every part of it from start to finish. I still have a lot to learn to get to that point, but that would be a goal of mine. That, and becoming really good at AutoCAD.

## What do you see yourself doing in the future?

My ultimate goal is to get into the solar industry to help improve their efficiency and reduce the cost of the panels. The design team here at Charge was the perfect placement for me. I'm able to see the entire design process and all the thought and communication required to complete a proficient product. The design process is something I really want to get down because no matter what the subject is the process tends to be the same. If I know how to follow a proven process my own designs will be easier and ultimately invaluable to the knowledge I'm trying to build for my future.