

COS Prepares Plant Science Major for Cutting-Edge Farm Automation Career

Jon Hornung initially enrolled at College of the Sequoias (COS) on a trial basis. He enjoyed the agriculture program so much that he earned two degrees in Ag Business and Plant Science. Then he transferred to Fresno State and graduated with a BS degree in Plant Science. **Through a COS employer event, Hornung met representatives from Nichols Farm and was hired as an intern. He worked for the company while completing his education and now, seven years later, has a thriving career as an Agriculture Technical Specialist.** He enjoys customizing remote monitoring and control of irrigation systems to meet growers' needs for HotSpot AG™, a technology startup founded out of Nichols Farms.

When Jon Hornung was in high school, he envisioned being a police officer. But after he attended the World Ad Expo®, and met staff and faculty from College of the Sequoias, his career direction changed. **“I was intrigued that COS had an entire campus in Tulare dedicated to agriculture, not just a few classes,”** said Hornung. **“I was sold on the Career Technical Education (CTE) programs that COS offered and unique agriculture focus.”**

So despite living in Bakersfield, more than an hour's drive away from the Tulare campus, Hornung enrolled at COS after graduating from high school. “I figured that I'd give college a try for one semester,” said Hornung. “The college's welcoming environment and comprehensive agriculture program convinced me to continue taking classes. I kept going until I earned an Associate of Science (AS) in both Ag Business and Plant Science.”

According to Hornung, it was easy to get to know faculty and students. **“College of the Sequoias has an intimate feel and everyone is helpful,”** said Hornung. “Specialty classes have about 30 students enrolled. At a university, there might be over 400 students in an introductory course. I'd recommend starting at community college.”

Hornung credits faculty with encouraging him to get involved in campus clubs. **“My Ag Business Professor, Shannon Cooper, pushed me to go above and beyond,”** said Hornung. “I volunteered during field days and community agriculture projects. She showed me that students have to take personal responsibility to learn more and get involved beyond the classroom to set themselves apart from their peers.”

The college offers many clubs where students can hone their skills and explore careers. “I joined both the Ag Business and Crop Science Clubs,” said Hornung. “Working outside of class with a team of volunteers is where I met my best friends. Being heavily involved in events, clubs and community activities as well as serving as the Ag Business Club president built lasting friendships. Even though we've gone in different directions since graduating, we are still close.”

Hornung also took advantage of COS career services. “I walked into a one-hour course on how to build a resume,” said Hornung. “Cosmo Costales, CTE Career and Academic Success Coordinator, was a big help in simplifying my resume.”



Jonathan Hornung

Agriculture Technical Specialist, HotSpot AG

At a COS Entrée to Employment event, Hornung connected with James Nichols, with Nichols Farms, a fourth-generation family farm dedicated to providing the highest quality organic and conventional pistachios in the USA. “I wasn’t really looking to hire another intern when I met Jon,” said Nichols. “I was impressed with Jon’s maturity, politeness and vision that he wanted a career in agriculture. **We created an intern position for Jon to work on a technology project.**”

The company has been hiring interns from COS for 15 years, explained Nichols. “The COS Ag Department on the Tulare campus is a real gem,” said Nichols. **“The college has been phenomenal in teaching agriculture to students. The dedicated campus is fantastic and the staff is even better.”**



Nichols recommends that other employers consider COS as a source of interns. “The farm and HotSpot AG™ have successfully hired COS student interns, especially for small scope projects,” said Nichols. “It works best if there is a clear objective and expected result to be delivered at the end of the internship. **Having interns is beneficial for the company and gives students real world experience.**”

The Nichols Farms internship changed Hornung’s career path. “After the first year, I became an employee and continued to work while going to school,” said Hornung. “At COS, you can usually stack your classes on Monday/Wednesday or Tuesday/Thursday and work on the other days.”

After graduating from COS, Hornung transferred to California State University Fresno. “It put me a little bit ahead of other students because my COS classes articulated so I’d already taken required courses,” said Hornung. “I’d highly recommend attending COS where there is plenty of help to get started and it doesn’t cost a lot if you change your mind. I felt well prepared for university and graduated from Fresno State with a Bachelor of Science in Plant Science.”

Nichols became president of the HotSpot AG™, the technology startup founded out of Nichols Farms. “We modernize irrigation systems for remote monitoring and control,” said Nichols. **“Jon has been a huge contributor to the team. I’m so glad we hired him as an intern seven years ago.”**

Hornung currently works as an Agriculture Technical Specialist for HotSpot AG™. “Working for a small company is exciting,” said Hornung. “I thrive in this environment, where I wear many hats and do something different every day.”

The most satisfying part of Hornung’s job is working with growers to customize systems. “We design systems with sensors and pumps that can automate, track and report on irrigation, fertilization and other tasks to save money, water and time,” said Hornung. “Farmers work long hours and many necessary tasks can be automated. Rather than driving around fields checking the irrigation, growers can look at tablets and see what is happening in real time. When they are more efficient, it reduces stress and gives them time to spend on other activities.”

Because this is a new field, Hornung enjoys being on the cutting edge. “We are creating standards for how the industry operates,” said Hornung. “Farmers have so much knowledge but it is not well documented. With the data being collected, researchers are studying how farmers are applying the knowledge to develop lasting, cost-effective and

environmentally-sound solutions. With remote monitoring, problems are identified more quickly, and fixed, so farmers get larger yields and healthier plants.”

Now Hornung has come full circle, and attends COS campus events representing his employer, HotSpot AG™. “I suggest to students that they work on finding out who they are and what they want to achieve while they are attending COS,” said Hornung. **“Students need to get out into the field by volunteering and interning to see what they like to do. No one is going to tell you what to do. To excel as an individual, you have to be a self-starter, take pride in your work and know how to work alone as well as with a team to achieve your goals.”**