

Tianquan Su, PhD, 2014



What influenced your decision to attend graduate school at OSC?

I wanted to learn optics and was told that OSC was the best among a few standalone optical institutes in the U. S. The tuition was also not very high compared to some other schools.

What do you wish you would have known your first day of graduate school? Was there anything you wish you had done to prepare more for graduate school?

I started as a MS student and, to be honest, I wasn't ready to do research. I didn't know how to communicate with my advisor when I had issues. So, I wish I had talked to a grad student—farther along in their program of study—about how to communicate the problems and issues in our research.

Which classes did you find most enjoyable? Which ones did you find most difficult?

I would say the optical systems class taught by Matt Dubin and Jim Burge was the most fun. We built our own optical systems to search for Jim's 'lost marbles.' The most difficult for me was the radiometry class, which was taught by three different professors at that time.

Was there an individual (professor, advisor, staff, friend, family member) who played a particularly important role in your education?

My advisor, Jim Burge, was definitely the one who impacted me the most. The way he approached research, led a team, and enjoyed life are all very different but equally inspiring. He led the team in doing both cutting-edge research and advanced engineering, while training us on soft-skills like managing and presenting our research. He held students to a high standard, so much that I almost dropped out of the PhD program. He bought his students beers in happy hours and encouraged us to practice having 'smart conversations' when drinking, because 'a lot of work/deals are done at the dining table.'

What was your research while attending OSC?

My work was to develop a far-infrared deflectometry system to measure the surface shape of large astronomical mirrors during grinding. My system guided, and sped up, the fabrication of the DKIST primary mirror, which just created some stunning photos of the sun recently.

What was the cost of rent in Tucson while you were in school?

I paid \$400/month for a room in a 3-bedroom house at the beginning of grad school. Later, I was able to find a small 2-bedroom apartment a little farther from campus for \$600/month.

If you owned a car during graduate school, what year and model was it?

I bought a car in 2009 during my second year of grad school. It was a dark green 2000 Honda Accord, with peeling paint.

What was your favorite restaurant/student hangout near campus?

My wife (girlfriend then) and I really liked Beyond Bread, Choice Greens, and The Taco Shop on Broadway.

What did you do for fun during your time in graduate school?

Hiking and basketball.

What was most memorable about your commencement ceremony?

I was the Valedictorian and my speech almost brought one classmate to tears (her words).

At the time of your graduation, what were the most sought-after jobs/most popular industries/most popular companies?

When I graduated in 2014, big consumer electronic companies, like Apple and Google, had started to hire many more optical sciences graduates.

What was your first job after graduation?

As a foreign PhD graduate in metrology, I went to KLA as a system engineer to work on ellipsometer equipment.

What was the most significant world event during your time in graduate school. How were you affected by this event?

I started graduate school in Fall 2008. I would say the most significant event was the financial crisis. A lot of academic funding was cut in the following years. However, OSC made it through well with industrial funds. I was not greatly impacted.

Was there a campus or community event in Tucson that was especially important to you?

I can't really recall a favorite, but there was a food festival every year where I used to help a friend sell beverages.

What advice would you give to this year's graduating class?

Keep in touch with your friends and schoolmates. You will help each other along throughout your career. 'OSC alumni' is a very shiny badge to carry.