On the versatility of a degree in photonics: “It is a great training ground that prepares a student to be successful in a variety of jobs. [Photonics] is used in everything,” he says. “It’s a good field to be in.”

In 2009, David began working for Harnett County Public Utilities in North Carolina, and he also began to take classes at CCCC in pursuit of a degree in lasers and photonics. For David, the most challenging aspects of completing his degree had to do with “being older, having a family and a home, and working full time.” With all of these responsibilities piled on top of the commitment of being a full time student, David faced a very busy three years. But he wanted a career that would remain challenging to him and that would continue to teach him new things, so he persisted.

When he began the laser and photonics program, David expected to learn about light, lasers, and photonics, but he did not realize how practical his coursework would be. He recalls that his program put “most of its emphasis on lab work and hands-on experience, using electronics-testing equipment.” He learned to build, test, and troubleshoot analog and digital circuitry. Students also operated and maintained gas, solid-state and semiconductor lasers.

David is grateful that his education was so hands-on; he explains that what he learned at CCCC “really comes in handy.”

David graduated in 2011 with an associate degree in lasers and photonics, as well as a certificate in electronics engineering technology. Now that he is working with real-life applications, David is convinced that CCCC’s laser and photonics program “is a great training ground that prepares a student to be successful in a variety of jobs.” David is still impressed by “how many different fields you can work in” with a technical degree. He explains that a background in photonics gives students the opportunity to work with medical applications, electronics, and many other technical areas. “It’s used in everything,” he says. “It’s a good field to be in.”

After David graduated, he began working with Cree as a research and development technician “in the wafer fabrication facilities” at their plants in Durham and Research Triangle Park in North Carolina. His responsibilities included developing new products and working with engineers and scientists on new equipment qualification. He also was responsible for collecting data, operating vapor deposition tools, and handling etch and photolithography equipment. Today, David works in research and development at Cree’s Durham plant, where he collaborates with
scientists and engineers to alter the color and increase the brightness of LED lighting applications. He conducts and documents experiments, and he works with production operators to improve and streamline the production process. David sees a bright future with Cree, and true to his original goal, he continues to learn something new every day.

David lives in Mamers, North Carolina, with his wife and two sons. He and his sons play instruments in their church’s band, and the whole family enjoys traveling together.