

**Undergraduate Research and Internship Opportunity**  
**Research and Development of FPGA LDPC Decoders**  
February-September 2021

We are excited to announce an opportunity for two UCLA undergraduates to participate in research in Professor Wesel's Communications Systems Laboratory during winter and spring quarters of 2021 followed by a summer internship at Physical Optics Corporation in Torrance, California.

Working as a team, two UCLA undergraduates will use C++ and VHDL to develop state-of-the-art low-density parity-check decoders used to reliably store information in Flash memories. The research team will be supported in their efforts by Prof. Wesel, graduate and undergraduate students in the Communication Systems Laboratory (CSL), and engineers at POC. The work will begin at UCLA in the CSL during winter and spring quarters and continue during the summer at Physical Optics Corporation. Pay is \$22/hour for winter and spring research at UCLA. Students will report progress weekly and give formal quarterly presentations to the CSL and to the POC management team.

The preferred skill set includes the ability to work well on a team as well as proficiencies in FPGA programming, C++ (CS31), probability (ECE 131A), and communications systems (ECE 132A).

More information about the CSL can be found at <http://www.seas.ucla.edu/csl>.

More information about POC can be found at <https://www.poc.com>.

Applications should send a resume, cover letter, and unofficial transcript to Professor Wesel at [wesel@ucla.edu](mailto:wesel@ucla.edu) with the subject line "Physical Optics Corporation research and internship program." Applicants should be ready to commit to the full 8-month experience. Applications due by email Sunday, January 31.