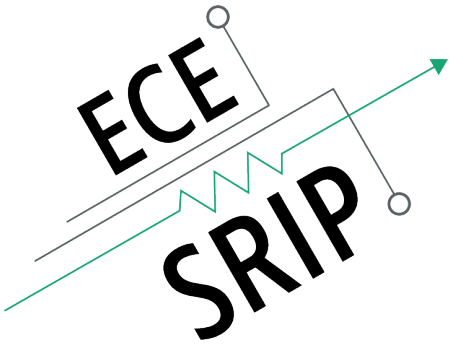
FACULTY MENTOR
An, Cheolhong

PROJECT TITLE
Lensless Camera

PROJECT DESCRIPTION
A camera is ubiquitous nowadays for machine vision as well as human vision. Lensless camera, which can take photos and videos without a lens, will remove the last barrier to build a thin camera. This project consists of two parts: the modeling of a lensless camera system and FPGA implementation to capture a real image.

INTERNS NEEDED
2 MS Students

PREREQUISITES
For modeling, candidates must have a strong knowledge of optics imaging and image processing.
For implementation, candidates should have hands-on experiences with HDL and Xilinx toolchains for FPGA.



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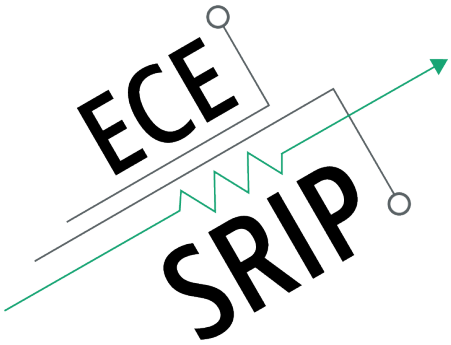
PROJECT TITLE
ML network for Medical image analysis

PROJECT DESCRIPTION
There are many types of lesion in the human eye. In this work, we need to develop ML algorithms to identify and localize retina disease.

INTERNS NEEDED
2 MS students

PREREQUISITES
Candidates must have image processing and ML knowledge and can program on the ML frameworks (e.g. Tensorflow or Pytorch.



FACULTY MENTOR
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PROJECT TITLE
ML network to overlay metadata onto medical images

PROJECT DESCRIPTION
Many ophthalmic instruments not only take pictures but also provide meta information to help ophthalmologists diagnose eye disease. We'll develop a ML algorithm to overlay metadata of the ophthalmic instruments to various retina images.

INTERNS NEEDED
1 BS or MS Student

PREREQUISITES
Candidates must have image processing and ML knowledge and can program on the ML frameworks (e.g. Tensorflow or Pytorch).