



FCam - An architecture and API for computational cameras

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Abstract

In this short course we cover the FCam (short for Frankencamera) architecture for computational cameras and an API that implements the API. We begin with the motivation, which is flexible programming of cameras, especially camera phones. We cover the API and several example programs that run on N900, a Linux-based smart phone from Nokia. We also discuss a research camera built at Stanford University that allows experimentation with different sensors and optics. We also describe several applications developed on top of FCam, and FCam use at universities in research and teaching, so far in North America, South America, Europe, and Asia.

Syllabus: Computational Photography, Camera Control, Mobile Imaging