
MUHAMMAD FAIZAN SHABBIR

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EDUCATION

UCLA, Los Angeles, CA Masters in Electrical Engineering Electrical Engineering focusing on Image Processing and Data Analysis	2014 - present
UCLA, Los Angeles, CA Bachelors in Electrical Engineering Electrical Engineering with a Computer Engineering Option	2009-2013

RELATED EXPERIENCE

Professor Ozcan Research Group Junior Development Engineer Image processing, Data analysis, Software development. Develop and implement sophisticated image processing algorithms across multiple platforms including Matlab, C, and CUDA. Working on large-scale sample analysis on parallel and distributed platforms such as the Hoffman2 UCLA cluster and Amazon Elastic Compute Cloud (EC2).	December 2013 – present
Professor Ozcan Research Group Lab Assistant Image processing, Fourier optics. Work extensively with Matlab to classify objects and aggregate statistics from samples in various lens-free holographic microscope setups. Setting up experiments and working with hardware such as CMOS and CCD sensors, spectrometers, microcontrollers, optical fiber cables, and step motors.	June 2012 – December 2013
SpaceX Mars Rover Design Competition Team Dragon Third place. Designed, built and programmed a robot to function autonomously.	May 2013
Natcar Analog Front End Design, assemble, and race an autonomous car on a track marked by a wire carrying 100mA RMS at 75kHz and white tape. In charge of building the analog sensors for the car that would provide the input to the car, guiding it to maneuver properly. Worked extensively with PCB's, oscilloscopes, power supplies, function generators and other lab equipment.	September 2011 – May 2012

CONFERENCES / PUBLICATIONS

"High-throughput Analysis of CR39 Detectors using Lensfree Holographic On-Chip Microscopy" W. Luo, C. Gong, F. Shabbir , C. Gulec, J. Pigeon, J. Shaw, A. Greenbaum, T. Su, A. F. Coskun, S. Tochitsky, C. Joshi, and A. Ozcan, "High-throughput Analysis of CR39 Detectors using Lensfree Holographic On-Chip Microscopy," North American Particle Accelerator Conference (NA-PAC'13), September 29 – October 4, 2013, Pasadena, CA USA, Contribution ID# 2345.	October 2013
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