



BREAKOUT SLIDE

Cindy Xinyu Xu

2014 US NAE FOE Symposium

09-11-2014

Technical Background

❑ Computer Vision

- Develop Technology for automatic robot navigation, an essential functionality needed by self-driving cars (or any autonomous robot/vehicle).

❑ Machine Learning

- Big data processing and analysis in Health Care and Biometrics, for example, develop techniques for unconstrained large scale face recognition.

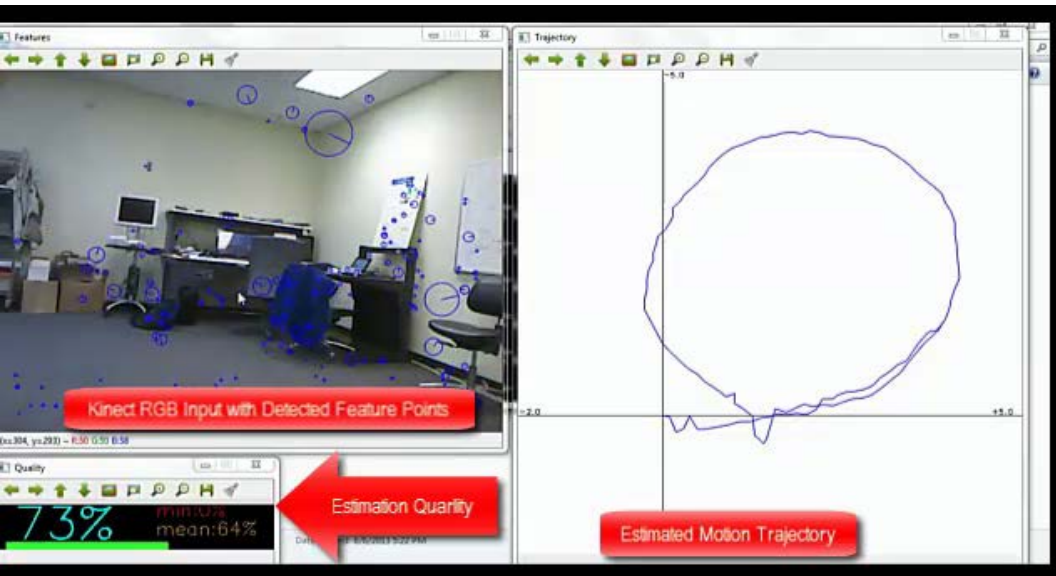
❑ Pattern Recognition

- Develop technology for detection and recognition of patterns for automatic product inspection, e.g. detect defect in LCD TV panel.

❑ Image & Video Processing

- Develop technology for enabling ultra-high definition imagery, e.g. image de-noising, image super-resolution.

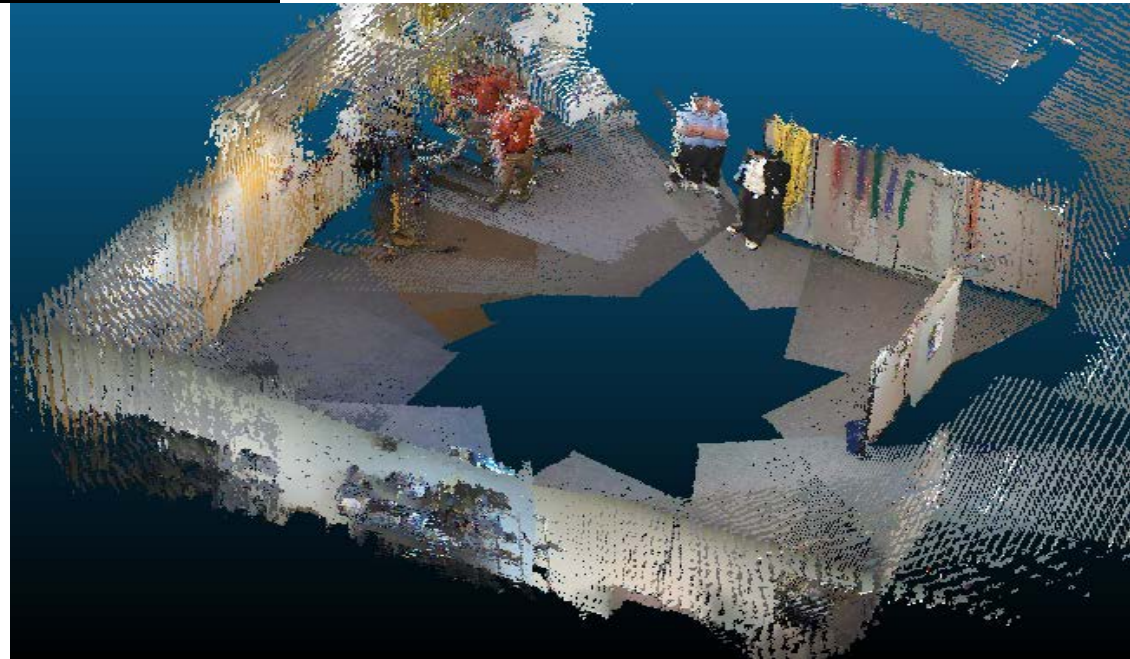
Technical Work Example



Localize robot position and construct a 3D map of the environment with a RGB-D camera (e.g. Kinect).

Work done at

SHARP
LABORATORIES OF AMERICA



Thank you!

Q & A