Muhammad Asad

Department of Computer Science, City University London, EC1V OHB, UK

masadcv@gmail.com www.student.city.ac.uk/~abfc148/ seevisionc.blogspot.co.uk

Education

City University London

London, UK

PhD research student in Visual Computing;

Feb. 2013 - Present

- Research Topic: Hand Pose and Orientation Estimation for Egocentric Devices

The University of Sheffield

Sheffield, UK

Master of Science in Computer Vision Engineering;

Sep. 2011 - Sep. 2012

- Result: 74.9%; MSc with Distinction
- Dissertation Project: Hand Gesture-Based Computer User Interface Using Microsoft Kinect
- National University of Computer and Emerging Sciences (NUCES) Islamabad, Pakistan

 Bachelor of Science in Telecom. Engineering; GPA: 3.45/4.00 Sep. 2006 Jun. 2010
 - Final Project: Guidance System for Visually Impaired using Digital Image Processing
 - * Real-time smartphone application for Android to assist visually impaired persons

Beaconhouse School System

Islamabad, Pakistan

GCE Advanced Level; 2 B's and 1 C

Sep. 2004 - Jun. 2006

- Key Courses: Physics, Chemistry, Maths

Publications

- M.Asad, G.Slabaugh, "Learning Marginalization through Regression for Hand Orientation Inference", Computer Vision and Pattern Recognition (CVPR) Second Workshop on Observing and Understanding Hands in Action (HANDS) 2016 (Best Paper Award Winner)
- M.Asad, G.Yang, G.Slabaugh, "Supervised Partial Volume Effect Unmixing for Brain Tumor Characterization using Multi-voxel MR Spectroscopic Imaging", IEEE International Symposium on Biomedical Imaging (ISBI) 2016
- S.M.M.R.Al Arif, M.Asad, K.Knapp, M.Gundry, G.Slabaugh, "Cervical Vertebral Corner Detection using Haar-like Features and Modified Hough Forest", International Conference on Image Processing Theory, Tools and Applications (IPTA) 2015.
- M.Asad, E.Gentet, R.Basaru, G.Slabaugh "Generating a 3D Hand Model from Frontal Color and Range Scans", to appear, the International Conference on Image Processing (ICIP) 2015.
- S.M.M.R.Al Arif, M.Asad, K.Knapp, M.Gundry, A.Appelboam, A.Reuben, G.Slabaugh, "Hough Forest-based Corner Detection for Cervical Spine Radiographs", Medical Image Understanding and Analysis (MIUA) 2015.
- M.Asad, G.Slabaugh "Hand Orientation Regression using Random Forest for Augmented Reality", International Conference on Augmented and Virtual Reality (AVR'14), September 17-20, 2014, Italy
- M.Asad, C.Abhayaratne "Kinect Depth Stream Pre Processing for Hand Gesture Recognition", IEEE International Conference on Image Processing (ICIP'13), September 15-18, 2013, Australia
- M.Asad, W.Ikram "Smartphone based Guidance System for Visually Impaired Person", IEEE International Conference on Image Processing Theory, Tools and Applications (IPTA'12), October 15-18, 2012, Turkey

Relevant Experience

Learning Enhancement and Development, City University London

London, UK

Learning Object Designer

May. 2015 - Aug. 2015

 Designing an online learning module - getting feedback from supervisor and improving existing learning modules

School of Informatics, City University London

Matlab Programmer

Nov. 2014 - Apr. 2015

London, UK

- Matlab programming, Signal and Image processing, software testing and documentation.

Technical Skills

Technologies: C/C++, Matlab, Python, Java, FPGA (Verilog and Vhdl)

Testing, Documentation and Bug Reporting: JIRA, Confluence, ServiceNow

Computer Vision Libraries: OpenCV (PC/Android), OpenNI (Kinect)

Hardware: Kinect Sensor, BeagleBoard, Spartan 3, Arduino Uno

Technical Documentation: Ability to communicate using technical reports detailing guidance documentation, performance analysis, technical discussions and proposed ideas. Familiar with using LATEX.

Awards and Achievements

Scholarships: Awarded departmental Merit Scholarship at The University of Sheffield and Fee Waiver at City University London

Game Hackathon: Developed a game to help accelerate cancer research at a three day hackathon event (2013), Google Campus, London, UK

Reviewer of manuscripts for:

- IEEE Transactions on Systems, Man, and Cybernetics, Part B: Kinect and Its Applications
- SPIE: Journal of Electronic Imaging (JEI)

Other Experience

- Learning Enhancement and Development, City University London London, UK

 *Project Support Officer (LEaD) Feb. 2014 Sep. 2014
 - providing support for content migration, IT service management system, review and management of educational technology equipment, compiling minutes and actions from meetings.
- Learning Development Centre (LDC), City University London London, UK

 *IT Project Officer (Content Migration)

 *Aug. 2013 Sep. 2013
 - prepared batch CSV for Kaltura, migrated videos using semi-automatic batch upload process, coordinated different stages of migration with staff, updated and managed the migrated content in moodle modules and reported recommendations and bugs.

Author of OpenCVKinect

https://github.com/masad801/OpenCVKinect

- C++ Wrapper class for acquiring Kinect data streams in OpenCV

Author of AndroidWifi

http://seevisionc.blogspot.co.uk

Link to page: http://goo.gl/JKwHwE

 a set of batch scripts enabling users to share their internet with mobile devices using Microsoft Virtual Wifi Miniport

References

To be provided on request