STANLEY M BILESCHI

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EDUCATION:

Massachusetts Institute of Technology
Ph.D. in Computer Science, May 2006
Dissertation: *StreetScenes: Towards Scene Understanding in Still Images*
Advisor: Tomaso Poggio

Master of Engineering in Electrical Engineering and Computer Science, January 2003
Thesis: *Advances in Component Based Face Detection*

State University of New York at Buffalo
Bachelor of Science in Computer Science, May 2000
Bachelor of Engineering in Electrical Engineering, May 2000
Summa Cum Laude

DOCTORAL DISSERTATION:

S. Bileschi. *StreetScenes: Towards Scene Understanding in Still Images.* MIT Doctoral Thesis. 2006

SELECTED PUBLICATIONS:

S. Bileschi. *Fully Automatic Calibration of LIDAR and Video Streams From a Vehicle*. 3-D Digital Imaging and Modeling (3DIM ICCV Workshop) 2009.

S. Bileschi. *Object Detection at Multiple Scales Improves Accuracy*. 19th IAPR International Conference on Pattern Recognition (ICPR) 2008.

T. Serre, L. Wolf, S. Bileschi, and T. Poggio. *Robust Object Recognition with Cortex-like Mechanisms*. IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI) 2007.

S. Bileschi and L. Wolf. *Image Representations Beyond Histograms of Orientations: The Role of Gestalt Descriptors.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2007.

L. Wolf, S. Bileschi and E. Meyers. *Perception Strategies in Hierarchical Vision Systems.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2006.

L. Wolf and Bileschi S. *Combining Variable Selection with Dimensionality Reduction.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2005.

S. Bileschi and L. Wolf. *A Unified System for Object Detection, Texture Recognition, and Context Analysis Based on the Standard Model Feature Set.* British Machine Vision Conference (BMVC) 2005.

S. Bileschi and L. Wolf. *A Critical View of Context.* International Journal of Computer Vision (IJCV) 2005.

S. Bileschi and B. Heisele. *Advances in Component Based Face Detection.* IEEE International Workshop on Analysis and Modeling of Faces and Gestures (AMFG) 2003.

PATENT:

7606777 High-performance vision system exploiting key features of visual cortex

PROFESSIONAL EXPERIENCE:

BILESCHI INTELLIGENCE SERVICES [2007-2010]: **Sole Proprietor**
Started and managed small AI computing consulting company, formed in January 2007 and my full time job until I joined the start-up *DataXu* full time.

DATAXU [2010-Current]: Responsible for exploring and implementing algorithms to bid intelligently in the real-time display ad market. Challenges include optimizing against multiple various customer constraints while continuously learning from billions of samples.

SELECTED CONSULTING PROJECTS:

BAE SYSTEMS:
Project: Research and development of image processing techniques to detect specific objects, such as road markings and terrain types from aerial LIDAR and optical imagery.

***LOCKHEED MARTIN*:**
Project: Led a small team involved in development of object recognition technology for categorization of lidar imagery from ground based urban data captures.

***SCANSCOUT.COM*:**
Project: Design of scalable techniques to automatically organize user-generated video content into semantically meaningful groups based on video imagery alone.

***VISTACON TECHNOLOGIES*:**
Project: Development of code for speed-critical circuit for long range object detection system

***EVRYX.COM*:**
Project: Investigation into intellectual property issues and development of technology for detection of 2D objects in cell-phone photographs.

***AFFINE SYSTEMS*:**
Project: Implementation of scalable face recognition software package in C and OpenCV.

DATAXU:
Project: Tailoring of machine learning techniques to big-data real time ad-auction.

REFERENCES:

Dr. Tomaso Poggio
Eugene McDermott Professor in the Brain Sciences and Human Behavior
Massachusetts Institute of Technology
Cambridge MA, 02139
617-253-5230
tp@ai.mit.edu

Dr. Tommi Jaakkola
Professor of Electrical Engineering and Computer Science
Massachusetts Institute of Technology
Cambridge MA, 02139
tommi@csail.mit.edu

Dr. Willard Simmons
CTO
DataXu
281 Summer St.
Boston, MA 02210
bill@dataxu.com

ACADEMIC HONORS:

National Science Foundation Fellow - 2000
Awarded to approximately 1000 outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master and doctoral degrees.

University at Buffalo Honors Program 1996-2000
Awarded by SUNY Buffalo to select students to provide undergraduate research, internship, and scholarship opportunities.

TEACHING EXPERIENCE:

Massachusetts Institute of Technology, Cambridge, MA
Teaching Assistant, Spring 2005

- Worked under MIT Prof. Polina Golland
- Taught *Representation and Modeling for Image Analysis* for the advanced degree program
- Instructed students on the skills necessary to dissect modern research publications regarding object recognition and image analysis.

DataXu, Boston, MA
Senior Analytics and Software Engineer, 2009 – Current

- Responsibilities included quarterly lectures on relevant technologies and techniques
- Lectures included stream learning, large-data statistical approximation techniques, machine learning theory / application.
- On line lecture materials available on request