

KYONGIL YOON

Associate Professor, Computer Studies
School of Arts, Sciences, and Business
Notre Dame of Maryland University
kyoon@ndm.edu

INTERESTS

- Computer Vision (Human Recognition and Tracking in Video Surveillance)
- Video Processing and Content Analysis
- Computerized Item Modeling (Automatic Item Generation)
- Computerized Online Adaptive Formative Assessment
- Online Mathematics Education
- Mathematics/Geometry/Computer Science in Art

EXPERIENCE

Aug. 2006–Present Notre Dame of Maryland University, Baltimore, MD
Associate Professor at Computer Studies Department

2010–Present Cafalab Inc., MD
Co-Founder, System Developer

Jun. 2021–Aug. 2021 Korea Oceanic & Atmospheric System Technology, Seoul, Korea
Consultant

Jun. 2020–Jan. 2021 Equalkey Corp. Seoul, Korea
Advisor & Chief Researcher

Summer 2018, 2019 Ewha Womans University, Seoul, Korea
Instructor at International Summer College,

Aug. 2017–Dec. 2019 Bowie State University, Bowie, MD
Adjunct Professor at Computer Science Department

Aug. 2014–Dec. 2014 Nemustech Co., Korea
*Visiting Researcher with the support by Brain Pool Scouting program of NIPA
Developed StarTrek (Meta Information Extract System from Video)*

Aug. 2005–Jun. 2006 McDaniel College, Westminster, MD
Visiting Assistant Professor at Computer Science Department

Jan. 2001–Aug. 2005 University of Maryland, College Park, MD
Research Assistant at Computer Vision Lab.

Jun. 1998–Jan. 2001 University of Maryland, College Park, MD
Research Assistant at Language and Media Processing Lab., CfAR.

Sep. 1996–May. 1998 University of Maryland, College Park, MD
Teaching Assistant at Computer Science Department.

Mar. 1992–Jun. 1996 Samsung Electronics, Co., Ltd., Kiheung, Korea
Senior Research in Multimedia Group

Feb. 1990–Feb. 1992 Samsung Advanced Institute of Technology, Kiheung, Korea
Research in Multimedia Group

EDUCATION

1997–2005	University of Maryland at College Park <i>Ph.D. in Computer Science</i> Thesis title: <i>Key-frame Appearance Analysis for Video Surveillance</i>	College Park, MD
1988–1990	Seoul National University <i>M.S. in Computer Science</i>	Seoul, Korea
1984–1988	Seoul National University <i>B.S. in Computer Science and Statistics</i>	Seoul, Korea

TEACHING & COMPUTER SKILLS

- Courses taught
 - Programming Languages and Concepts
C++, Visual Basic, Python, Java
 - Fundamentals of Information System
 - Web Page Design (HTML, CSS, JavaScript)
 - Web Animation (Adobe Flash, HTML5 Canvas and JavaScript)
 - Data Structures/Algorithms
 - Database Concepts
 - Data Tools
 - Data Visualization
 - Telecommunication and Networking
 - Software Engineering
- Operating Systems and Computer Languages
 - C, C++, Java, Python, R, ASP, JavaScript, Visual Basic, Php
 - Unix, Linux, Windows, Amazon AWS, WordPress Plugin
 - Robot Operating System
 - DBMS: MySQL, SqlServer, MS Access

PUBLICATIONS

- Choi, J., Kim, S., & Yoon, K. (2017). CAFA AIG Manual: Computer Adaptive Formative Assessment Automatic Item Generation User's Guide [System Manual], 2nd edition. Clarksville, MD: CAFA Lab, Inc.
- Choi, J., Kim, S., & Yoon, K. (2017). K-Math Workbook Grade 7. Clarksville, MD: CAFA Lab, Inc., ISBN/EAN13: 0998129801 / 9780998129808
- Choi, J., Kim, S., & Yoon, K. (2016). K-Math Workbook Grade 6. Clarksville, MD: CAFA Lab, Inc., ISBN/EAS13: 0998129860 / 9780998129860
- Geometric Constructions of Korean Danchong Patterns And Building Platonic Solids Kyongil Yoon, Hyunkyung Kim and Reza Sarhangi, *Bridges Conference, Seoul, Korea, 2014*
- CAFA (Computer Adaptive Formative Assessment™) Client Application: Automatic Item Generation™ (v 1.0 Beta) [Computer System], Choi, J., Kim, S., & Yoon, K. eMathTest, Inc. 2014

- CAFA (Computer Adaptive Formative Assessment) Smart Workbook (v 1.0 Beta) System: CAFA Client Application for Common Core Math Workbook [Computer System], Choi, J., Kim, S., & Yoon, K., eMathTest, Inc., 2014
- CAFA (Computer Adaptive Formative Assessment) Smart Assignment (v 1.0 Beta) System: CAFA Client Application for School Assignments [Computer System], Choi, J., Kim, S., & Yoon, K., eMathTest, Inc., 2014
- CAFA (v 1.0 Beta) System: Computer Adaptive Formative Assessment System for Educational Services [Computer System], Choi, J., Kim, S., & Yoon, K., eMathTest, Inc., 2012
- Analytical Calculation of Geodesic Lengths and Angle Measures on Sphere Tiling of Platonic and Archimedean Solids, Kyongil Yoon, *Bridges Conference, Towson, USA, 2012*
- ezIA (v 1.0.0): A Microsoft Excel Add-In for test item analysis Choi, J., Kim, S., & Yoon, K., 2009 [Computer software].
- Background Subtraction Enhancement using Segmentation Kyongil Yoon, *Ninth ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing, 2008, Phuket, Thailand*
- Appearance-based Human Gallery Construction from Video Kyongil Yoon, Yaser Yacoob, David Harwood, *International Conference on Signal Processing and Multimedia Applications, Jul. 28-31, 2007, Barcelona, Spain*
- Human Appearance Modeling for Matching across Video Sequences Yang Yu, Kyongil Yoon, David Harwood, Larry Davis, *Machine Vision and Applications, 2007*
- Appearance-based Person Recognition using Color/Path-Length Profile Kyongil Yoon, David Harwood, Larry Davis *A special issue on the topic of Real-Time Imaging in 'Journal of Visual Communication and Image Representation' 2006*
- Key-frame Appearance Analysis for Video Surveillance Kyongil Yoon *Ph.D. Thesis, University of Maryland, 2005*
- Event Detection from MPEG Video in the Compressed Domain Kyongil Yoon, Daniel DeMenthon, David Doermann *International Conference on Pattern Recognition (ICPR '00), Sep. 03-08, 2000, Barcelona, Spain*