

JARRELL WAGGONER

BIOGRAPHICAL DATA

ADDRESS: DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING,
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CITIZENSHIP: UNITED STATES CITIZEN

RESEARCH INTERESTS

COMPUTER VISION, SEGMENTATION, CONTOUR COMPLETION, PERCEPTUAL GROUPING, DOCUMENT IMAGE ANALYSIS, EVENT RECOGNITION, IMAGE PROCESSING, SIGNAL PROCESSING, TOMOGRAPHIC IMAGE ANALYSIS.

EDUCATION

PRESENT PH.D. CANDIDATE IN COMPUTER SCIENCE, **University of South Carolina**
ADVISOR: DR. SONG WANG

MAY 2009 MASTER OF ENGINEERING IN COMPUTER SCIENCE, **University of South Carolina**
GPA: 3.8/4.0 | *magna cum laude*

MAY 2006 BACHELOR OF SCIENCE IN COMPUTER SCIENCE, **Bryan College**
summa cum laude

MAY 2004 ASSOCIATE OF SCIENCE IN COMPUTER SCIENCE
University of South Carolina at Lancaster
GPA: 4.0/4.0 | *summa cum laude*

TEACHING EXPERIENCE

2008—2009 GK-12 FELLOW AT CRAYTON MIDDLE SCHOOL
Teaching 8th Grade Science
SERVED IN CRAYTON MIDDLE SCHOOL, COORDINATING WITH THE CLASSROOM INSTRUCTOR TO ENHANCE THE SCIENCE CURRICULUM AND ACTIVITIES IN AN 8TH GRADE SCIENCE CLASSROOM. SUBSEQUENTLY COORDINATED AND TAUGHT AT THE GK-12 INSTITUTE FOR TEACHERS, PRESENTING THE ACTIVITIES DEVELOPED AND DELIVERED IN THE CLASSROOM.

2007—2008 GRADUATE TEACHING ASSISTANT AT USC
Teaching Software Development and Web Scripting
SUPERVISED CSCE 145 LABS, COVERING SOFTWARE DEVELOPMENT WITH JAVA, AND TAUGHT CSCE 102, COVERING JAVASCRIPT, HTML, AND CSS.

SPRING 2007 INSTRUCTOR FOR CSCE 204 AT USCL
Teaching Introductory Programming
HIRED AS SPECIAL FACULTY. TAUGHT INTRODUCTORY VISUAL BASIC FOR MAJORS AND NON-MAJORS. SELECTED TEXTBOOKS, DEVELOPED ALL COURSE MATERIAL, GRADED ALL ASSIGNMENTS. WORKED WITH DR. NONI M. BOHONAK

FALL 2006 CAMP INSTRUCTOR FOR USCL ARTS AND SCIENCES ADVENTURE CAMP
Teaching 5th-8th Grade Students

WORKED IN COLLABORATION WITH DR. DWAYNE BROWN. ONE OF TWO INSTRUCTORS TEACHING MATH AND COMPUTER SCIENCE TO GRADE SCHOOL STUDENTS.

2003—2007 | PROFESSIONAL TUTOR AT USCL ACADEMIC SUCCESS CENTER
Tutoring High School and College Students
STUDENT AND GRADUATE TUTOR FOR COLLEGE-LEVEL MATHEMATICS, COMPUTER SCIENCE, PHYSICS, AND ENGLISH CLASSES.

RESEARCH EXPERIENCE

2010—PRESENT | RESEARCH ASSISTANT FUNDED BY DARPA
Video Event Recognition
EXPLORED SEGMENTATION METHODS FOR VIDEO EVENT RECOGNITION WHILE WORKING AT THE COMPUTER VISION LAB AT USC. MANAGED LAB COMPUTER NETWORK AND ORGANIZE WEEKLY LAB MEETINGS. ATTENDED P.I. MEETINGS IN SAN DIEGO (2010) AND COLORADO (2011). VISITED PURDUE UNIVERSITY WORKING WITH DR. JEFFREY MARK SISKIND (DEC 2010—JAN 2011).

2009—2010 | NSF FELLOW AT THE CENTER FOR DIGITAL HUMANITIES
Digital Collation
CREATED A DIGITAL COLLATION APPLICATION TO HANDLE AUTOMATIC DIFFERENCING OF SUB-TEXTUAL INCONSISTENCIES AMONG MULTIPLE COPIES OF *The Faerie Queene* BY EDMUND SPENSER.

PUBLICATIONS

- [C1] A. TEMLYAKOV, B.C. MUNSELL, J.W. WAGGONER, AND S. WANG. TWO PERCEPTUALLY MOTIVATED STRATEGIES FOR SHAPE CLASSIFICATION. IN *IEEE Conference on Computer Vision and Pattern Recognition*, PAGES 2289–2296, 2010.
- [C2] Z. ZHANG, Y. CAO, D. SALVI, K. OLIVER, J. W. WAGGONER, AND S. WANG. FREE-SHAPE SUBWINDOW SEARCH FOR OBJECT LOCALIZATION. IN *IEEE Conference on Computer Vision and Pattern Recognition*, PAGES 1086–1093, 2010.

PRESENTATIONS

- [P1] *Image Registration for Digital Collation*. GRADUATE STUDENT DAY COMPETITION, HONORABLE MENTION. APRIL 2, 2010.
- [P2] *Aspect-Oriented Programming*. IN CSCE 531. GUEST LECTURE FOR DR. MARCO VALTORTA. MARCH 19, 2008.
- [P3] *Math 241*. VECTOR CALCULUS. GUEST LECTURE FOR DR. DWAYNE BROWN. APRIL 23–26, 2007.
- [P4] *Math 242*. DIFFERENTIAL EQUATIONS. GUEST LECTURE FOR DR. DWAYNE BROWN. APRIL 23–26, 2007.

TRAVEL

- [T1] *Mind's Eye PI Meeting*. DARPA PROJECT P.I. MEETING. DENVER, CO. JANUARY 20–21, 2011.
- [T2] *Tomography and its Applications to Materials Science and Non-Destructive Evaluation*. ORGANIZED BY M. DE GRAEF, L. DRUMMY, J. SIMMONS, M. COMER, C. BOUMAN, AND J. KNOPP. TECH^EDGE, DAYTON, OHIO. DECEMBER 13–15, 2010.
- [T3] VISITING SCHOLAR. IN COLLABORATION WITH J. M. SISKIND. PURDUE UNIVERSITY, WEST LAFAYETTE, IN. DECEMBER 6–22, 2010 & JANUARY 5–16, 2011.

[T4] *Mind's Eye Kickoff Meeting*. DARPA PROJECT P.I. MEETING. SAN DIEGO, CA. SEPTEMBER 23—24, 2010.

HONORS/AWARDS

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| 2010 | GRADUATE STUDENT DAY PRESENTATION, HONORABLE MENTION | USC |
| 2006 | SENIOR COMPUTER SCIENCE AWARD | Bryan College |
| 2004 | CLARA P. HAMMOND AWARD | USCL |
| | SCIENCE AND MATHEMATICS AWARD | |
| | HIGHEST ACADEMIC AVERAGE AWARD | |

TEACHING

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|----------------|-----------------------|--------------------|------|
| SUMMER II 2008 | » CSCE 102 | HTML/CSS/JAVASRIPT | USC |
| SPRING 2008 | » CSCE 145 LAB | JAVA | |
| FALL 2007 | » CSCE 145 LAB | JAVA | |
| SPRING 2007 | » CSCE 204 | VISUAL BASIC | USCL |
| SPRING 2007 | » MATH 241 & MATH 242 | MAPLE | |
| | (GUEST LECTURE) | | |

SKILLS & LANGUAGES

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| » ASSEMBLY | • • | » JAVA | • • • • • | » PYTHON | • • • |
| » BASH | • • • • | » JAVACRIPT | • • • | » SCHEME | • • • |
| » BLENDER | • • • | » \LaTeX | • • • | » SQL | • • • |
| » C/C++ | • • • • | » LISP | • | » SYS. ADMIN. | • • • • |
| » ENGLISH | • • • • • | » MAPLE | • • • | » VISUAL BASIC | • • • • • |
| » GIT/SVN/CVS | • • • • | » MATLAB | • • • • • | » WORDPRESS | • • • • |
| » GNU/LINUX | • • • • | » OPENCV | • • • • | | |
| » HTML/CSS | • • • • • | » PHP | • • • • | | |

INTERESTS AND ACTIVITIES

PROGRAMMING, TEACHING, MATHEMATICS
OPEN-SOURCE SOFTWARE, SYSTEM ADMINISTRATION, LINUX
TYPOGRAPHY, MUSIC COMPOSITION