Sebastian van Delden, Ph.D.

Curriculum Vitae

POSITIONS HELD

WINTHROP UNIVERSITY — JAN 2024-PRESENT

Rock Hill, SC 29733

Provost and Vice President for Academic Affairs	Jan 2024-Present

THE COLLEGE OF CHARLESTON — 2015-2024

Charleston, SC 29424

School of Sciences, Mathematics, and Engineering	
Dean	2020-2024
Interim Dean	2018-2020
Interim Chair of Engineering	2023-2024
Department of Computer Science	
Chair and Professor of Computer Science	2015-2018

SOUTHEASTERN LOUISIANA UNIVERSITY — 2012-2015

Hammond, LA 70402

Department of Computer Science and Industrial Technology	
Department Head	2012-2015
Professor of Computer Science	2014-2015
Associate Professor of Computer Science	2012-2014

UNIVERSITY OF SOUTH CAROLINA UPSTATE — 2004-2012

Spartanburg, SC 29303

Division of Mathematics and Computer Science:	
Associate Professor of Computer Science	2009 - 2012
Assistant Professor of Computer Science	2004 –2009
Office of Sponsored Awards and Research Support:	
Director of Research	2010 – 2012
Director of Undergraduate Research	2007 – 2010

EDUCATION

UNIVERSITY OF CENTRAL FLORIDA, Orlando, FL

Doctor of Philosophy / Computer Science	2001-2003
Master of Science / Computer Science	1999-2001
Bachelor of Science / Computer Science (cum laude)	1995-1999

ADMINISTRATIVE EXPERIENCE

AS PROVOST AND VPAA AT WINTHROP UNIVERSITY:

- Lead the academic enterprise: 5,500 students, six colleges and schools, 300+ faculty and staff, serving on the Cabinet and the emergency management team, co-chairing the university-wide space utilization committee, and co-chairing the university-wide budget committee.
- Established an Honors College that Leads with Leadership in its mission and vision – a partnership with the York County Chamber of Commerce.
- Established an Office for Student Success as part of an organizational realignment, including the implementation of a new university-wide shared advising model to improve student retention.
- Worked closely with the South Carolina Research Authority (SCRA) which led to serving as one of the statewide Co-PIs on a successful NSF SC EPSCoR E-CORE $10,000,000 grant proposal, and an Innovation Hub for the tech community being established on Winthrop's campus.
- Oversaw the SACSCOC institutional "Level Change" accreditation re-classification when Winthrop's first doctoral program was introduced.
- Partnered closely with the Vice President for Student Affairs to establish a new central physical Student Career Center on campus and build Career Ecosystem programming.
- Notable New Academic Programs established during my tenure:
    - Ed.D. in Leadership and Innovation, Bachelor's in Artificial Intelligence, Bachelor's in Health Sciences, Bachelor's in Financial Technology, Master's in Educational Studies, Bachelor's in Game Design, Bachelor's in Applied Software Engineering, Bachelor's in Aviation and Business Management, new Dual Enrollment Middle College program for Rock Hill and Fort Mill school districts, a comprehensive new Transfer Pathway with Central Piedmont Community College, and a comprehensive Pre-Health Professions Advising online platform.
    - Launched the Winthrop Elevate online academic enterprise and first Competency Based Education (CBE) programs.
- Brought experiential learning opportunities for students physically to campus through partnerships with the Post and Courier and Atrium Health EMS.
- Work closely with the VP for University Advancement to cultivate and steward philanthropic donors, in particular for the new Honors College, Health Sciences, and Engineering.
- Established or updated various policies related to IP, Chair Appointment, Assistant/Associate Dean Appointments, Sabbaticals, Senior Instructor Promotions, AI Syllabus Statements, Tenure and Promotion, IACUC, Student Accommodations, CBE, International Faculty Sponsorships, and others.
- Led the overhaul of the university's Policy Repository, management systems, and processes.
- Introduced a professional development Lunch and Learn workshop for Chairs and Deans to tackle recruiting, retention, and other topics.
- Supported the procurement and implementation of a new campus-wide Student Evaluation of Teaching instrument and software system, as well as a new cohesive software system for annual reporting, promotion and tenure, faculty credentials, assessment, and faculty searches.
- Led a comprehensive effort to analyze low-enrolled academic programs which led to innovative and substantive program changes as well as programs being discontinued through a thoughtful and collaborative process.
- Assisted the President in bringing visibility to the university by delivering various presentations to regional economic development agencies, industry, and community organizations.

AS DEAN AT THE COLLEGE OF CHARLESTON:

- Lead seven academic departments (Biology, Chemistry and Biochemistry, Engineering, Geology and Environmental Sciences, Computer Science, Physics and Astronomy, and Mathematics) with academic programming offered in 350,000 square feet of high-tech space across six facilities.
    - 20 undergraduate degree programs and 7 graduate degree programs
    - 125 full time faculty, 250 total personnel, and 2,000 students
- Served on the Hollings Marine Lab Executive Board and the President's proxy on SC Sea Grant Consortium Board of Directors.
- Secured over $6,000,000 in philanthropic giving for scholarships, naming opportunities, planned gifts, instrument innovation and other initiatives.
- <u>New</u> Academic Programs, Initiatives and Accomplishments:
    - A Bachelor's in Biochemistry, a Bachelor's in Software Engineering, a Bachelor's in Statistics, a Bachelor's in Systems Engineering, a Bachelor's in Electrical Engineering, a Bachelor's in Environmental Geosciences, a Minor in Geoinformatics, a Minor in Digital Manufacturing Technology, a Minor in Computing in the Arts, a Minor in FinTech, and a Bachelor's in Environmental and Sustainability Studies.
    - CofC's first doctoral program – a PhD in Mathematics with Computation.
    - A Biology/Nursing Dual Degree Articulation Agreement with the Medical University of South Carolina (MUSC) as well as the Mary Black School of Nursing at USC Upstate.
    - A Biology/PharmD Dual Degree Articulation Agreement with MUSC.
    - A 2+2 Transfer Articulation Agreement with Trident Technical College.
    - A MOU with Lowcountry EMS that brought better coordination and a financial revenue stream to the CofC EMS program.
    - A transportation service that connects the Marine Biology program to main campus, and spearheaded the implementation of a camera system to improve security at the Grice Marine Labs at Fort Johnson.
    - An Endowed Diversity Fund and a momentum program for students of color.
    - A Student Ambassador program, a weekly "STEM Tour and Talk with the Dean" program, and an active social media presence to raise awareness among prospective students and other constituencies, setting historic record high enrollment in STEM majors.
    - An annual Faculty and Staff Back-to-School Convocation and monthly open question/answer session for faculty, staff, chairs, and the dean.
    - Reimagined the SSME Board of Advocates.
    - An Academic Director position for the Stono Preserve in order to better utilize this environmental campus by CofC faculty and students.
    - An annual Faculty Award, an annual Staff Award, and an annual Adjunct Faculty Award.
    - An Educational Partnership Agreement with the Naval Information Warfare Center.
    - A Math Placement Program for all students to improve retention.
    - A Pre-College Program called STEM 360 for high school students.
    - An Assistant Dean for Belonging, Inclusion, Diversity and Equity position.
    - Founding member and Vice Chair of the SC Center of Resilience Excellence (CORE) which received $1,000,000 in State funding.
    - Secured $800,000 from the SC Research Authority to support Applied STEM Research.
    - Established a Peer Mentoring Center to improve retention and belonging.
    - Piloted the infusion of Micro-credentials via Coursera in targeted curricula.

AS DEPARTMENT CHAIR AT THE COLLEGE OF CHARLESTON:

- Led six degree programs in the department which has approximately 500 students, 15 faculty members, and two full time support staff.
    - Undergraduate: Computer Science (BS and BA), Computer Information Systems, Computing in the Arts, Data Science
    - Master's in Computer and Information Sciences, Master's in Data Science and Analytics
- Helped coordinate 3,000 sf expansion to include research labs followed by a 2500 sf expansion to establish a student innovation center at Harbor Walk East.
- Established a co-location space called The COMPASS in which large companies have established a physical presence inside the department.
    - The initial companies involved were Boeing, Bosch, Mercedes-Bens Vans, Benefitfocus, and Booz Allen Hamilton.
- Assisted in coordinating SACSCOC assessment and other accreditation efforts.
- Led the successful ABET CAC reaffirmation of accreditation effort in 2018.
- New Academic Programs:
    - A Master's degree in Data Science and Analytics.
    - Curriculum changes to the Computer Science degree to conform to new ABET accreditation requirements. Computing in the Arts – Digital Media concentration. Computing in the Arts – Game Programming and Interaction concentration.
    - Coursework in Computing in the Arts, Cyber Security, Internships, Mobile Application Development, and others.
    - Restructured Data Science and Computer Information Systems undergraduate curricula.
    - Graduate Certificate programs in Software Engineering and Information Systems.

AS DEPARTMENT HEAD AT SOUTHEASTERN:

- Led six degree programs in the department which had approximately 1,100 students and 30 faculty members.
    - Computer Science, Information Technology, Engineering Technology, Industrial Technology (BS and AAS), and Occupational Safety, Health and Environment
- Coordinated three successful ABET/ATMAE reaccreditation processes:
    - Computer Science (BS), Information Technology (BS), ABET-CAC, Fall 2012
    - Industrial Technology (BS and AAS), ATMAE, Spring 2013
    - Engineering Technology (BS), ABET-ETAC, Fall 2014
- Assisted the Dean and the President in securing state funding to build a new Computer Science and Industrial Technology Building ($22,000,000) in 2015. Construction was completed in 2017.
- Partnered with Career Services to introduce a technology-focused career fair (Tech-Connect) in the Spring semesters.
- Introduced a departmental "Freshmen Convocation" event early in the Fall semester to help improve retention.
- Assisted in coordinating SACSCOC assessment and other efforts for all programs in department.
- New Academic Programs:
    - An ABET accredited Bachelor's in Information Technology degree program.
    - The Accelerated Computing Engagement (ACE) program – a three-year pathway to receiving the Bachelor's in Information Technology that includes a practical internship experience - in order to meet industry demands for computing professionals in the region.
    - A Pre-MBA concentration in the Computer Science degree.
    - Three OSHE Minors.

AS DIRECTOR OF RESEARCH AT USC UPSTATE:

- Coauthored and presented the proposal which established the Office of Sponsored Awards and Research Support.
- Achieved 100% participation of all campus departments in programs offered.
- Developed and implemented *new* internal funding programs, including: a Scholarly Start-up Package program for new tenure-track hires, a research/teaching assistant grant program, a faculty research release time program, and a Research Experience Program for USC Upstate students with the Steadman Hawkins Orthopaedic Research Foundation of the Carolinas.
- Introduced the USC Upstate Undergraduate Research Journal. Volume 1, Spring 2008; Volume 2, Fall 2009; Volume 3, Fall 2010; Volume 4, Fall 2011.
- Introduced a YouTube Research Channel. Professionally filmed/edited short videos of undergraduate research
- Introduced the Year In Review annual publication. An annual overview of all faculty scholarly work campus-wide.
- Significantly Expanded the Annual Research Symposium to include numerous other colleges/universities, secured external monies, hosted the event at neutral non-academic research institutions, grouped talks into specialized sessions, included creative performances.
- Lobbied for and was able to establish a new Research Associate position who directly reports to the Director of Research.

SCHOLARSHIP

PEER-REVIEWED, PUBLISHED ARTICLES (TECHNICAL):

Megan Landau and Sebastian van Delden. 2017. *A System Architecture of Hands-Free UAV Drone Control Using Intuitive Voice Commands*. Short Paper in the Companion Proceedings of the **12th Annual International Conference on Human Robot Interaction**. HRI2017. Vienna, Austria. March 6-9, 2017.

Sebastian van Delden, Grace Chenevert, and John Burris. 2015. *Finger Tip Tracking for Manipulator Jogging using the Kinect*. In Proceedings of the **7th Annual IEEE International Conference on Technologies for Practical Robot Applications**. TePRA 2015. Boston, MA. May 11-12, 2015

Kuo-Pao Yang, Sebastian van Delden, and Elyse Bond. 2014. *KinectFlix: A Hand Gesture Recognition Application for Kinect to Watch NetFlix.* **World Journal of Computer Application and Technology** (WJCAT), ISSN 2331-4982, 2(1): 6-9, January, 2014.

Sebastian van Delden, Carlos Rosario, Gregory Hess, and Michael Umrysh. 2012. *Pick-and-Place Application Development using Voice and Visual Commands*. **Industrial Robot: An International Journal**. Volume 39, Number 6, Pp 592-600. Emerald Publishers.

Sebastian van Delden and Andrew Whigham. 2012 - *A Bluetooth-based Architecture for Android Communication with an Articulated Robot.* In Proceedings of the **International Conference on Collaboration Technologies and Systems - Collaborative Robotics and Human Robot Interaction**. Pages 104-109. Denver, Colorado. May 21-25, 2012.

Sebastian van Delden and Michael Umrysh. 2011. *Visual Detection of Objects in a Robotic Work Area using Hand Gestures*. In Proceedings of the **IEEE International Symposium on Robotics and Sensor Environments**, Montreal, Canada, Pp 237-243. September 17-18, 2011.

Sebastian van Delden and Nicole Tobias. 2010. *A Novel Approach to 3D Contour Recovery using Structured Light Mounted to a Robotic Manipulator*. In Proceedings of the **IASTED International Conference on Robotics and Applications**, Cambridge, MA, Pp 167-173, Nov 1-3, 2010.

Sebastian van Delden and Frank Hardy. 2009. *Robotic Eye-in-hand Calibration in an Uncalibrated Environment*. In the **Journal on Systemics, Cybernetics and Informatics**. vol 6(6). Pp 67-72.

Sebastian van Delden and Benjamin Overcash. 2008. *Towards Voice-Guided Robotic Manipulator Jogging.* In Proceedings of the **12th World Multiconference on Systemics, Cybernetics and Informatics**. vol 3. Pp 138-144. Orlando, Florida. July 2008.

Sebastian van Delden. 2007. *Problematic Syntactic Patterns*. **Language and Computers, Volume 60.** "Corpus Linguistics Beyond the Word: Corpus Research from Phrase to Discourse." Edited by Eileen Fitzpatrick. Rodopi Publishers. Pp 59-71.

Sebastian van Delden, Ricky Farr, and Seth Hensley. 2007. *An Automated Camera Orientation Recovery Algorithm for an Eye-in-Hand Robotic Manipulator*. In Proceedings of the **5th IEEE International Symposium on Robotic and Sensors Environments**. Pp 1-6. Ottawa, Canada. October 12-13, 2007.

Sebastian van Delden. 2006. *Improving Inter-Level Communication in Cascaded Finite-State Partial Parser*. **Lecture Notes in Artificial Intelligence**. Selected Papers from the 5th International Workshop on Finite State Methods in NLP. Springer. 4002. Pp 259-270.

Sebastian van Delden. 2006. *Constructing a Simple Visually-Guided Robotic Part-Grasping System with Off-the-Shelf Components*. In Proceedings of the **18th IEEE International Conference on Tools with Artificial Intelligence**. Pp 211-216. Washington, D.C. November 13-15, 2006.

Sebastian van Delden. 2005. *Complement Identification Algorithms for Partial Parsers.* **International Transaction on Computer Science and Engineering**. vol 9(1). Pp 210-220. June 2005.

Sebastian van Delden. 2005. *Simple but Useful Algorithms for Identifying Noun Phrase Complements of Embedded Clauses in a Partial Parse*. In Proceedings of the **10th International Conference on Applications of Natural Language to Information Systems**. Pp 357-361. Alicante, Spain.

Sebastian van Delden and Fernando Gomez. 2004. *Cascaded Finite-State Partial Parsing: A Larger-First Approach.* **Current Issues in Linguistic Theory (CILT)**. Edited by N. Nicolov, K. Botcheva, G. Angelova, and R. Mitkov. vol 260, Pp 402-413. John Benjamin Publishers, Amsterdam.

Sebastian van Delden, David Bracewell, and Fernando Gomez. 2004. *Supervised and Unsupervised Automatic Spelling Correction Algorithms.* In Proceedings of the **2004 IEEE International Conference on Information Reuse and Integration.** Las Vegas, Nevada. Pp 530-535. November 8-10, 2004.

Sebastian van Delden and Fernando Gomez. 2004. *A Finite-State Comma Tagger.* **International Journal of Artificial Intelligence Tools.** vol 13(3). Pp 449-468. World Scientific Publishing.

Sebastian van Delden and Fernando Gomez. 2004. *Retrieving NASA Problem Reports: A Case Study in Natural Language Information Retrieval.* **Journal of Data and Knowledge Engineering.** Vol 48(2). Pp 231-246. Elsevier Science.

Sebastian van Delden and Fernando Gomez. 2003. *Extending a Finite State Approach for Parsing Commas in English to Dutch*. **Language and Computers: Studies in Practical Linguistics.** Edited by Charles F. Meyer and Nelleke Oostdijk. vol 27, Pp 25-38.

Sebastian van Delden and Fernando Gomez. 2003. *A Larger-First Approach to Partial Parsing.* In Proceedings of the **2003 International Conference on Recent Advances in Natural Language Processing.** Pages 124-131. Borovets, Bulgaria, September 10-12, 2003.

Sebastian van Delden. 2003. *Learning WordNet-Based Classification Rules.* In Proceedings of the **2003 AAAI Spring Symposium on Human Interaction with Autonomous Systems in Complex Environments**. Pp 203-208. ISBN 1-57735-181-9. Stanford University, Stanford, California, March 24-26, 2003.

Sebastian van Delden. 2002. *A Hybrid Approach to Pre-Conjunct Identification*. **In Proceedings of the 2002 Language Engineering Conference**. Pp 72-77. University of Hyderabad, India. December 13-15, 2002.

Sebastian van Delden and Fernando Gomez. 2002. *Combining Finite State Automata and a Greedy Learning Algorithm to Determine the Syntactic Role of Commas*. **In Proceedings of the 14th IEEE International Conference on Tools with Artificial Intelligence**. Washington, D.C. Pp 293-301. November 4-6, 2002.

Sebastian van Delden and Fernando Gomez. 2002. *Retrieving NASA Problem Reports with Natural Language*. **In Proceedings of the 7th International Workshop on Applications of Natural Language to Information Systems**. Pp 150-159. Stockholm, Sweden. June 26-27, 2002.

PEER-REVIEWED, PUBLISHED ARTICLES (PEDAGOGY):

Sebastian van Delden and Kuo-Pao Yang. 2014. *Robotics Summer Camps as a Recruiting Tool: A Case Study.* In the **Journal of Computing Science in Colleges**. Papers presented at the CCSC – Mid South Conference in Memphis, TN. Volume 29, Number 5, Pages 14-22, May 2014.

Sebastian van Delden. 2012. *A Circular Model for Framing the Undergraduate Research Experience.* In the **Council of Undergraduate Research Quarterly**. Volume 33, Issue 1, Page 40-52.

Sebastian van Delden. 2010. *Getting Your Robotic Arms around Computing Curricula.* In the **Journal of Computers in Education**. Published by the American Society for Engineering Education. Vol 1 (4). Pp 91-101. October-December issue.

Sebastian van Delden. 2010. *Computer Science Meets Industrial Robotics: A Visual Servoing Project for a Computer Vision Course.* In the **Journal of Computing Sciences in Colleges**. vol 25(6). Pp 85-92. Select papers from the 15th Annual Northeast Meeting of the Consortium for Computing Sciences in Colleges. Hartford University. April 2010.

Sebastian van Delden. 2010. *Industrial Robotic Game Playing: An AI Course.* In the **Journal of Computing Sciences in Colleges**. vol 25(3). Pp 134-142. Select papers from the 25th Annual Eastern Meeting of the Consortium for Computing Sciences in Colleges. Villanova University. January 2010.

Sebastian van Delden and Wei Zhong. 2008. *Effective Integration of Autonomous Robots into an Introductory Computer Science Course: A Case Study*. **Journal of Computing Sciences in Colleges**. Select papers from the Sixth Meeting of the Consortium for Computing Science in Colleges. vol 23(4), Pp. 10-19, April 2008.

SOME NOTABLE PRESENTATIONS:

Plenary Session on building a university's Career Ecosystem with Shelia Higgs-Burkhalter at the 2026 **Leadership Collective Annual Conference**. Savannah, GA. April 22, 2026.

Aviation Panel Session with ACES Flight School CEO Kevin Kyzer at the **South Carolina Aviation Association** Annual Conference, Myrtle Beach, SC. February 12, 2026.

Flight Paths with the Provost: Alumni Speaker Series events in Greenville, Myrtle Beach, and Atlanta. Spring 2026.

Panel Member on "How to enhance speed of Software Delivery leveraging processes like MBSE, DevSecOps, and Software Factory concepts" at the **Charleston Defense Contractors Association Summit**, December 8, 2021.

Co-presented online with Tommy Gardner, CTO of HP Federal, at **OLC Accelerate** on "Academic Cyber integrity," November 8, 2020.

Panel member for the **3rd Annual Charleston Civil Engineering Club/APWA Conference** on Technology & Innovation in Engineering, December 13, 2019.

Panel member for the **SCS ETV Apollo 11 Moon Landing Anniversary event** at Patriots Point on June 1, 2019.

CofC Alumni Presentation at LinkedIn's headquarters in San Francisco, July 26, 2018.

Presented on "Building Industry Partnerships" at **Googlefest 2016**, Charleston, SC. June 21-22, 2016.

Keynote Speaker at **the 2011 SC Junior Academy of Science Fall Workshop**

Led Round-Table discussions at the USC Upstate College of Arts and Sciences' **Evening of Great Conversations**. Fall 2011, Fall 2010, Spring 2007, Fall 2006, and Spring 2006.

Presented at the USC Upstate **College of Arts and Sciences - Getting off to a Fast Start Series**. Fall 2011, Fall 2010, Spring 2009, Spring 2008, and Fall 2004.

Fast Moving Technology Days Conference. Stäubli Corporation. Duncan, South Carolina. 2010 and 2006. Booth and presentation.

Computer Simulation: Training 21st Century Soldiers for Battle. **USC Upstate Honors Program Fall 2007 Conversation Series**. November 15, 2007.

Towards the Partial Calibration of an Eye-in-Hand Robotic Manipulator. Presented at the **Third Annual USC Upstate Research Symposium**. April 6, 2007.

MindStorm Robots in the Classroom. Presented at the **Cool Technologies in the Classroom Workshop**. USC Upstate. February 16, 2007.

A Visually Guided Part Grasping System. Presented at the **2006 USC Upstate Research Symposium**. April 21, 2006.

Detecting Edges in Digital Images. Presented at the **Guy Jacobson Mathematics Colloquium** on February 24, 2005.

UNDERGRADUATE RESEARCH ASSISTANT PRESENTATIONS/POSTERS:

Ava van Delden and Sebastian van Delden. 2023. *Robotic Quadruped Delivery of Clean Water in Rural Communities*. Poster Presentation at the **SC EPSCoR State Conference**, April 14, 2023.

Grace Chenevert. 2014. *Finger Tip Tracking using the Microsoft Kinect*. Presentation at the University of Louisiana System Academic Summit, Lafayette, LA. April 12, 2014.

Tanner Rhodus. 2012. Presentation of Microsoft Kinect research work to ABET Reaccreditation team during site visit.

Michael Umrysh and Sebastian van Delden. 2011. *Initial Steps Towards Using Hand Gestures to Control a Robotic Arm.* Presented at the **Seventh Annual USC Upstate Research Symposium**. April 15, 2011. ******Best Paper Award for "Math and Computer Science".**

Nicole Hodge and Sebastian van Delden. 2010. *Contour Recovery using Structured Light mounted to a Robotic Manipulator*. Poster at **Discovery Day 2010, USC Columbia.** April 23, 2010. ******Best Poster Award for "Computer Science and Engineering"**

Nicole Hodge, Robert Mahmoudishad, Mark Parrish, and Sebastian van Delden. 2009. *A Novel Robotic Approach to Contour Recovery using Structured Light.* Presented at the **Fifth Annual USC Upstate Research Symposium**. March 27, 2009.

Derrick Thompson, Jose Reyes, and Sebastian van Delden. Spring 2007. *Vision-Based Robots Playing Pong*. Presented at the **Third Annual USC Upstate Research Symposium**. April 6, 2007.

William Bittle, Sayed Shahabi, Ashley Bryant and Sebastian van Delden. *WOODBURNER: An Automated Robotic Character Etching System*. Poster at the **Second Annual USC Upstate Research Symposium.** April 21, 2006.

Jacob Landon, Stephen van Dahm, Sebastian van Delden, Ed Nagelhout. *Towards a Syntactically and Semantically Enhanced Corpus of Direct Mail Letters*. **First Annual USC Upstate Research Symposium**. University of South Carolina Upstate. Spartanburg, South Carolina. April 22, 2005.

Shea Menge, Sebastian van Delden, and Ed Nagelhout. *An Online Search Tool for a Philanthropic Discourse Corpus*. **First Annual USC Upstate Research Symposium**. University of South Carolina Upstate. Spartanburg, South Carolina. April 22, 2005.

SCHOLARLY SERVICE

- Conference Paper Reviewer for HRI2017. Conference Paper Reviewer (2006-2012): The IEEE International Conference on Robotics in Sensor Environments, the IEEE/RSJ International Conference on Intelligent Robots and Systems; the Annual Consortium for Computing Sciences in Colleges; the World Multi Conference on Systemics, Cybernetics, and Informatics; the 15th IEEE International Conference on Tools with Artificial Intelligence, and the International Conference on Information and Communication Technologies and Applications.
- Journal Paper Reviewer (2006-2012) for the International Journal of Artificial Intelligence Tools; the International Journal of Computer Mathematics; the International Journal of Artificial Intelligence in Medicine.
- Grant Reviewer for the *USC Columbia* Magellan Scholars Program (2009-2012); Health Initiative Grant Applications for College of Arts and Sciences (2008).
- Miscellaneous: Chaired Technical Sessions at: the IEEE International Symposium on Robotic and Sensor Environments, the 6th Annual Consortium for Computing Sciences in Colleges Mid-South Conference, 18th IEEE International Conference on Tools with Artificial Intelligence; Wrote book review of Data Structures and Other Objects Using C++. Third Edition. Written by Main, published by Addison Wesley, 2005.
- Robotics Industry Association Member (2010-2012). Membership sponsored by Stäubli.

FORMAL INDUSTRY TRAINING AND RESEARCH

- Vehicle-Configuration Expert-Systems Research Work, BMW's IT Research Center, 2007-2008.
- Cognex Insight Vision Systems Workshop: Standard and Advanced. Natick, Massachusetts. February 2010.
- Fanuc Operations and Programming course, Chicago, Illinois. 2010.
- V+ Training Program. Stäubli Corporation. Duncan, South Carolina. 2005.

PRIOR TO BECOMING COFC DEAN – VARIOUS FUNDING

$135,000 COMPASS (COMputing Professionals And Student Scholar) Partnerships with industry (Capgemini, Bosch, Boeing, Mercedes, Benefitfocus, CAI, Booz Allen Hamilton) to financially support the Computer Science department. 2017-2020

$499,999 *(not funded) Co-PI on NSF Grant: "SFS: Capacity: Putting the GENI in the box: Building a sustainable cybersecurity based graduate learning community." Along with Xenia Mountrouidou (PI) and Aspen Olmsted (Co-PI) 2018.*

$60,000 (funded) Worked with Cathy Mahon in Institutional Advancement to establish the Robbie Cushing Computing in the Arts Research Assistant endowment. 2016.

$25,000 (funded) Co-authored (with Junkun Ma) proposal to the American Association of Drilling Engineers (AADE) to support the Engineering Technology – Energy curriculum innovation. 2015.

$2,500,000 (funded) Assisted the Dean and President in securing $2,500,000 from the Louisiana Economic Development (LED) state agency to support computing programs at Southeastern starting in 2016. (Co-authored proposal and presented it to LED.)

$5K (annually)	(funded) Secured an *annual* sponsorship for the Computer Science Programming Team year-round initiative. Sponsored by Geocent. Secured along with John Burris. Established in 2014.
$2,500	(funded) Sponsorship of RoboFit: Robotics and Computing Summer Camp 2014 by Dow Chemical.
$1,000	(funded) Ameritas Technologies sponsors first annual "Programming Bee." Funds secured by John Burris and Sebastian van Delden. 2013
$3,600	(funded) With Kuo-Pao Yang and Ghassan Alkadi. Taking Southeastern's Robotics Summer Camp to new Heights: UAV Aerial Mulitcopters. Southeastern Office of Technology, 2013.
$1,500	(funded) Maritime Museum Lighthouse Project. Funds used to support a student team that designed and implemented a solar-powered web camera system connected to the internet via a mobile hotspot at the lighthouse on Lake Pontchartrain. 2013
$10K (annually)	(funded) Secured an *annual* sponsorship for the Engineering Technology Senior Design Project program from Laitram. Established in 2013.
$1,000	(funded) Sponsorship of Robotics and Computing Summer Camp 2013 by Geocent.
$5,000	(funded) With Kuo-Pao Yang and Ghassan Alkadi. Robotics Summer Camps. Southeastern Office of Technology, 2013.
$4,000	(not funded) Robotic 3D Contour Tracking using the Microsoft Kinect. Supervised Undergraduate Research Experiences (SURE) - A Program for Women and Underrepresented Minorities in STEM Disciplines. LA EPSCoR, 2013
$1,800	SGA Department Grant. Funding used to improve Computer Science and OSHE labs, 2012.
$13,745	(funded) Projector System for the Occupational Safety, Health and Environment Degree Program (Anzalone 215). Southeastern Office of Technology, 2012
$2,500	(funded) Extending a Natural Human-Robot Interface to Three Dimensional Contour Following. South Carolina Research Foundation. January-July, 2012.
$2,000	(funded) Financial Support of Undergraduate Robotics Research at USC Upstate. Upstate Workforce Investment Board. 2011.
$223,747	(not funded) Research Experience for Undergraduates, National Science Foundation, 2011-2013.
$30,000	(funded) Financial Support of Undergraduate Robotics Research at USC Upstate. SEW Eurodrive. 2010-2014.
$137,800	(funded) Equipment Donations/Grants at USC Upstate: Summary: Adept 550 4-dof robotic arm with extra motors and amplifiers, $32,000, J&J Industrial Services Inc., 2010; Fanuc 6 dof robotic arm, $32,000, SEW Eurodrive, 2010; Adept 550 robotic arm, $25,000, J&J Industrial Services Inc., 2009; Automotive components, $300, Dixie Too Auto Parts, 2008; RS20 4 dof robotic arm, $23,500, Stäubli Corporation, 2007; Adept 550 robotic arm, $25,000, J&J Industrial Services Inc., 2007; Several laptops donated to robotics lab, value not accessed, Automation Engineering Corporation.
$14,530	(funded) Initial Exploration of New Construction and Inferencing Algorithms for BMW's Vehicle-Configuration Expert-System, BMW's IT Research Center. 2007-2008.
$2,967	(funded) Robotic 3D Construction of Unknown Surfaces. South Carolina Research Foundation. 2008.
$7000	(funded) *Robotics at USC Upstate,* Research and Productivity Scholarship (R&PS), Columbia, South Carolina. 2005.
$6,100	(funded) *Linking a Syntactic Partial Parse to Semantic Verb Predicates,* Research and Productivity Scholarship (R&PS), Columbia, South Carolina. 2004-2005.
$501,469	(not funded) *Peeping with Peepers: Bringing the Natural World into the Classroom with Technology and Robotics*. U.S. Department of Education. (CO-PI). 2010.
$149,611	(not funded) *Automating a Computer Science Curriculum*, National Science Foundation (NSF) – Course, Curriculum, and Lab Improvement (CCLI) Program, 2006.

$10,448	(not funded) *Integration of Camera Space Manipulation and End Effector Design*, Oak Ridge Associated Universities Ralph E. Powe Junior Faculty Enhancement Awards. (CO-PI). 2005.
$20,000 (est)	(funded) The Upstate Make IT Happen Camp. 2012, 2011, 2010. Sponsored by IT-ology.
$500,000	(not funded - decision suspended) Proposal to name the "JM Smith Foundation Mathematics and Computer Science Wing." Funds to establish innovation fund, remodel tutoring labs, and update lab hardware/software. Coauthored and presented proposal with Bea Smith in University Advancement and Jerome Lewis.
$61,706	(funded) Private sponsorships and grants to support the annual research symposium, summer robotics camps, and annual research journal: $8,000 est (2011), $11,000 est (2011), $7,000 est (2010), $14,500 (2009); $15,706 (2008), $5,500 (2007).
$25,000	(funded) Established a Faculty Release Time Program for the newly created Office of Sponsored Awards and Research Support. Funded by USC Columbia. 2008.
$23,460	(funded) Established a Research Experience Program for USC Upstate students with the Orthopaedic Research Foundation of the Carolinas, 2008, 2009, 2010.
$15,000	(not funded) "Mom and Me Industrial Robotics Summer Camp" for 2010 and 2011. Microsoft Research and NCWIT.
$925	(funded) Funds used to purchase cameras, rock crawler, and robotic arm kit for the "Peepers" robotics exploration project. (CO-PI), 2009.
$9,750	(funded) Robotics Lab IT Infrastructure upgrade, 2009.
$3,383	(funded) A Natural Language Approach to Manipulator Jogging, Research Incentive Award from the Research Advisory Council. Research Grant. 2007.
-	Numerous internal Teaching and Productive Scholarship (TAPS) grants.

AWARDS

- **2022 Service Above Self** Leadership Award for the Rotary Club of Charleston Breakfast
- **2020 Rotarian of the Year** for the Rotary Club of Charleston Breakfast
- **2018 Charleston County Economic Development Ambassador**
- **2017 CofC Admissions Volunteer of the Year**
- **2016 Rookie of the Year – Rotary Club of Charleston - Breakfast**
- **2011 USC Upstate Bank of America Excellence in Teaching and Advising Award**
  - Recognizes an individual who has distinguished himself/herself with teaching and advising activities during the preceding year.
- **2007 USC Upstate Annual Award to Faculty for Scholarly and/or Creative Pursuits**
  - Recognizes an individual who has distinguished himself/herself by scholarly or creative activities during the preceding year.
- **2007 USC Upstate Vice Chancellor's Leadership Award**
  - Recognizes an individual who has demonstrated exceptional leadership, dedication and service.

Student Mentored Research Awards

- **Best Paper** Award in Math and Computer Science, 2011, at the Seventh Annual Upstate Research Symposium, Spartanburg, South Carolina, Michael Umrysh, research assistant.
- **Best Poster** Award in Computer Science and Engineering, 2010, at Discovery Day, Columbia, South Carolina, Nicole Tobias, research assistant.

TEACHING

AT THE COLLEGE OF CHARLESTON (2015-2023):

CSCI 215 Website Programming, CSCI 230 Data Structures, CSCI 310 Advanced Algorithm Design, CSCI 350 Computer Organization and Digital Logic, CSCI 392 Computing in Society, CSCI 399 Tutorial, CSCI 462 Software Engineering Practicum, DATA 495 Data Science Capstone, CSIS 604 Distributed Systems (graduate level).

AT SOUTHEASTERN LOUISIANA UNIVERSITY (2012-2015):

CMPS 161 Algorithm Design and Implementation I, CMPS 280 Algorithm Design and Implementation II, CMPS 390 Data Structures, CMPS 470 Machine Learning, CMPS 491 Special Topics, CMPS 570 Machine Learning (graduate level), CMPS 591 Special Topics (graduate level), SE 101.

AT UNIVERSITY OF SOUTH CAROLINA UPSTATE (2004-2012):

SCSC 585 Introduction to Computer Vision, SCSC 580 Introduction to Artificial Intelligence, SCSC 530 Programming Language Structures, SCSC 509 Topics in Computer Science, SCSC 499 Directed Research, SCSC 450 E-business Web Application Development, SCSC 441 Experiential Learning (field internship), SCSC 399 Independent Study, SCSC 321 Advanced Data Structures, SCSC 314 Introduction to Robotics, SCSC 300 Computer Science II, SCSC 241 Advanced Algorithm Design, SCSC 200 Computer Science I, SCSC 150 Introduction to Computer Science, SCSC 141 Elementary Algorithms.

- Established an "Automation" focus area in the Computer Information Systems degree program, which is a collaboration between the departments of: Computer Science, Business, and Engineering Technology Management.
- Introduced 3 new courses (2005) and had the leadership role in revamping the undergraduate CS and CIS degree programs (2004-2005).
- Established robotics internships with several businesses in the area.
- Wrote and presented proposal to establish an Undergraduate Research Lab for the Division of Math and Computer Science. The lab was established in 2005 and has been used heavily by numerous students and faculty since that time.

AT THE UNIVERSITY OF CENTRAL FLORIDA (2000-2003):

CAP6640 Natural Language Understanding (graduate level), CAP5636 Advanced Artificial Intelligence (graduate level), CAP4630 Introduction to Artificial Intelligence, COP3530 Computer Science III, CGS3175 Internet Applications, COT3100 Introduction to Discrete Structures, CGS2100 Fundamentals of Business Computer Science, CGS1060 Introduction to Computer Science (Teaching Assistant only).

AT THE SPARTANBURG DAY SCHOOL (MIDDLE SCHOOL ROBOTICS PROGRAM, 2011-2012):

Designed and taught a ***year-long*** robotics course for the 8th grade – two sections, thirty four students in total. This course included a combination of programming and mobile/industrial robotics theoretical information and hands-on activities.

NOTABLE SERVICE

AT WINTHROP UNIVERSITY:

- **York County Disabilities Foundation Board (2025-Present)**
  - Finance Committee
- **SACSCOC Reviewer (2024-Present)**
  - Off-site reviewer for three universities in Fall 2025
- **Campus Beautification**
  - Organized or participated in several campus clean-up volunteer efforts

AT THE COLLEGE OF CHARLESTON:

- **Boards**
  - South Carolina Center of Resilience Excellence (2020-2024)
    - Founding Board member
    - Vice Chair (2022-2024)
  - Ingevity Community Outreach Board (2021-2024)
  - Hollings Marine Lab Executive Board (2018-2024)
    - Chairperson (2022)
    - HML Science Director Search Committee (2020)
  - SC Sea Grant Consortium Board of Directors (2018-2024 (President's proxy))
  - MUSC Health Informatics Master's Program (2015-2024)
  - Charleston Digital Corridor – Foundation Board (2017-2023)
- **Select Committees**
  - Title IX Adjudicator for students, faculty, etc grievances (2022-2024)
  - Chair, Dean of Education Search Committee (2021)
  - Registrar Search Committee Member (2021)
  - Strategic Plan – Pillar 1 Steering Committee (2021)
  - RCM Steering Committee (2021)
  - Dean of Admissions Search Committee (2021 and 2023)
  - CIO Search Committee (2016)
  - Taskforce Member to develop the Center for Israel Studies (2018)
  - SCRA Industry 4.0 Feasibility Assessment Team (Represented the College of Charleston on this state-wide effort in 2018.)
  - Played key role in the Coastal Resiliency Hackathon hosted by Boomtown.
- **Chair of the Council of Chairs and Undergraduate Program Directors**
  - Liaison between Chairs and various other constituencies. 2016-2018
  - Introduced a Chair Mentorship Program, a Chairs Retreat Event and a memorandum on assessment practices to the Provost.
- **Competitive Programming**
  - **ACM ICPC Programming Competition – Team Coach**
    - In 2015, won Division II against 61 other teams in the Southeast Region, USA.

        - In 2016, placed 5th out of 76 teams
    - **Annual High School Programming Competition**
        - Coordinated the 34th Meeting: 60 students from NC, GA, and SC
        - Coordinated the 35th Meeting: 54 students from NC and SC
    - **Jam Sessions**
        - Advise the ACM Club and introduced bi-weekly, internal Competitive Programming Jam Sessions for CofC students.
    - **Bishop England High School**
        - Team Coach (Spring 2017)
- **Faculty Advisor** for high school Senior Theses at Academic Magnet High School
- **Rotary Club of Charleston Breakfast (2015-2024)**
    - Immediate Past President (2022-2023)
    - President (2021-2022)
    - President Elect (2020-2021)
    - Secretary (2019-2020)
    - Chair of Public Relations (2017-2019)
- Numerous demonstrations of a Boston Dynamics Spot Robot to local high, middle, and elementary schools and the Charleston Museum. (2022-2023)
- Bishop England Career Day Presentations and Demonstrations in 2016, 2017, 2018, 2019.
- Drone Robotics demonstrations to 120 girls in the **Girl Scouts** (2016)
- Stäubli Robot and Drone demonstration and program for the Charleston County Library (2017)

AT SOUTHEASTERN LOUISIANA UNIVERSITY:

- **QEP Committee:** Help to develop QEP proposal for SACSCOC reaccreditation.
- Established the Southeastern Student Chapter of the American Association of Drilling Engineers (**AADE**) in Spring 2014 and served as Faculty Advisor.
- **Rotary Club of Hammond**
    - Member 2013-2015
    - Graduate of the Rotary Leadership Institute
- Webmaster for the Louisiana Academy of Science, 2014-2015
- In 2013, established a **Robotics and Computing Summer Camp** for middle and high school students.
    - Extended this initiative to include the Kinesiology department in 2014 so that the students did computing/robotics as well as health and fitness activities.
- In 2012 and 2013, assisted with the **Harvest Cup Polo** setup/breakdown for the Junior League of Covington.
- High/Middle School Robotics/STEM Talks and Demonstrations. 2012-2015. Schools visited include Live Oak High, Rollins Elementary, Glasgow Middle, Hammond High.

AT USC UPSTATE:

- **Faculty Governance:** Faculty Grievance Committee (2011-2012), Faculty Senate (2006-2009); Student Affairs (2005-2008, Chair all three years); Faculty Advisory (2007-2008); Served as Juror on Honors Court Hearings (3 hearings in total, Chaired 2 hearings).
- **Peer Review Committees:** (first voting, review committee in the Promotion and Tenure process) Division of Math and Computer Science (2009-2012, Chair 2010-2011, 2011-2012); Department of Language, Literature, and Composition (2009-2010, 2010-2011); Library (2010-2011).

- **Faculty Search Committees:** Division of Math and Computer Science (2010, 2006, Chair in 2005, 2004 2x); Division of Natural Science and Engineering (2009); Department of Language Literature and Composition (2010, 2009, 2008).
- **Executive Search Committees:** Senior Vice Chancellor of Academic Affairs (2008); Assistant Vice Chancellor for Student Success (2008).
- **USC Columbia Office of Undergraduate Research:** 2008-Present. Advisory Board Member and grant reviewer.
- **Miscellaneous**: Global Curriculum Committee (2010-2012); Teaching and Learning with Technology Advisory Group (2008-Present), Organizing Committee member for a Chapter of Alpha Sigma Lambda at USC Upstate (2005-2007); member of the Foundations of Excellence First Year Initiative Advisory Board (2007); Research Advisory Council member (2005-2007); member of the Student Success Team (2005-2006); advise approximately 20 computer science majors each semester; Computer Science Library Liaison (2004-2007); MCS Technology Committee (2004-2007).
- **High/Middle School Robotics Talks and Demonstrations.** 2008-2012. Schools visited include: Carver Junior High Career day, Spartanburg Regional Childcare, Landrum Middle, Landrum High, D. R. Hill Middle, Homeschooled groups, Several Girl Scout Troops, Woodruff High, Woodruff Middle, Chapman High, Spartanburg Day School, Cleveland Elementary, Southside High, Montessori Academy, West View Elementary, Daniel Morgan Technology Center. Over 1500 students visited.
- **Robotics Summer Camps.** 2009-2012. Partnered with the Spartanburg Science Center, SEW Eurodrive, the Upstate Workforce Investment Board, and others to offer low-cost summer robotics camps targeting students who live under the poverty level.
- **Spartanburg Day School Robotics Program.** 2011-2012. Develop and implement a 8th grade robotics program. Also helped to secure a robotic arm donation to the Day School from Stäubli.
- **Boy Scouts Robotics Merit Badge.** 2011. Taught a three night robotics course for 12-16 year old boy scouts so that they achieve a Robotics Merit Badge.
- **IT-Ology Partner**
    - Coordinator/Organizer, Make IT Happen Camp. 2010, 2011, 2012. This camp is sponsored by IT-ology (the SC Consortium for Enterprise System Management). High schools kids get do programming and other activities on a laptop that they get to keep after the event. About 20-25 kids accepted each year.
    - Palmetto Pillar Award Judge. Reviewed 30+ applications from SC businesses.
- **North Spartanburg Rotary Club Member** (2007-2010)
    - Vocational Service Chair (2008-2010).