

# Vinayak Tanksale

Assistant Professor of Computer Science and Data Science, Ball State University

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## EDUCATION

Degree	Date	University	Major
PhD	August 2022	Purdue University	Electrical and Computer Engineering
MS	May 2001	Purdue University	Computer Science
BS	Aug 1999	The University of Toledo	Computer Science and Engineering

## EXPERIENCE (SUMMARY)

08/2022 – Present	Assistant Professor of Computer Science and Data Science	Ball State University
10/2021 – Present	Consulting and Testifying Expert	Quandary Peak Research
07/2012 – Present	President and Owner	BrightSphere Solutions
08/2018 – 08/2022	Senior Lecturer of Computer Science	Ball State University
01/2018 – 08/2018	Lecturer of Computer Science	Ball State University
08/2001 – 01/2018	Instructor of Computer Science	Ball State University
05/2000 – 08/2000	Software Design Engineer Intern	Microsoft Corporation

## EXPERIENCE (DETAIL)

### Ball State University

Teach a variety of undergraduate and graduate courses in support of computer science major and minor programs. Ensure that courses reflect current computer science thinking and technologies. Active involvement in research on sponsored projects. Maximize student achievement; provide input to various committees, revision of core CS curriculum.

### Quandary Peak Research

Consulting and Testifying Expert in software litigation and software quality assurance.

**eClinicalWorks** – Conduct IEC 62304 Audit of eClinicalWorks EHR

**Svoboda v. Amazon** – Perform detailed code review; Network forensic analysis; Potential violations of Biometric Information Privacy Act

**The Nielsen Company v. TVision Insights** – Patent infringement; Detailed code review; Reverse engineer binary code.

## **BrightSphere Solutions**

Consulting in software development, information architecture, and security:  
**Xerox Financial Services** – Custom lease management system; Web services design, deployment, and consumption; Interfacing with heterogeneous systems

**Marlin Capital Solutions** – Dealer portal architecture and development; 2FA implementation; Build and maintain document management system; Custom integration with Salesforce

**Jenmarco** – Direct marketing lead management system with thousands of users and millions of leads; Private cloud deployment; Imaging services; Data warehousing; Network security; Web services deployment

**JDRWeb** – Custom websites for small businesses using PHP, ASP .NET, and third-party content management systems

## **PROFESSIONAL SPECIALIZATION**

Cyber-Security, Deep Learning, Cryptography, Forensics, Software Litigation

## **HIGHLIGHTS**

- Named to the top 50 Technology in Education Innovators in the nation by the Center for Digital Education
- Recipient of 15 funded projects (external and internal)
- Authored book chapters, journal articles, and technical papers
- Invited presentations at CES 2018 and CES 2017 in Las Vegas
- TechPoint MIRA Award Finalist in the Education Contribution to Technology – Individual category (2011 and 2012)
- Extensive experience in the use of various innovative techniques and educational technologies to enhance student learning in on-campus, online, and hybrid courses
- Considered for a National Emmy Award Nomination
- Recipient of six Emerging Media Innovation Grants
- Researcher in the Software Engineering Research Center
- Proven track record of successfully delivering inter-disciplinary software projects
- Three Teaching awards as a graduate assistant at Purdue University
- Innovative Learning practices in the classroom
- Excellent Student feedback and reviews, Always Available and Easily Accessible to Students
- Faculty Fellow in the Center for Media Design
- Curriculum Development

## PUBLICATIONS (REFEREED)

- a. Tanksale, V., (2021) "Design of Anomaly Detection Functions for Controller Area Networks," in IEEE Open Journal of Intelligent Transportation Systems, vol. 2, pp. 312-321, 2021, doi: 10.1109/OJITS.2021.3104495.
- b. Tanksale, V., (2020) "Anomaly Detection for Controller Area Networks Using Long Short-Term Memory," in IEEE Open Journal of Intelligent Transportation Systems, vol. 1, pp. 253-265, 2020, doi: 10.1109/OJITS.2020.3043066.
- c. Tanksale, V., (2020) "Controller Area Network Security Requirements," 2020 International Conference on Computational Science and Computational Intelligence (CSCI), 2020, pp. 157-162, doi: 10.1109/CSCI51800.2020.00034.
- d. Tanksale, V., (2019) "Intrusion Detection For Controller Area Network Using Support Vector Machines," 2019 IEEE 16th International Conference on Mobile Ad Hoc and Sensor Systems Workshops (MASSW), Monterey, CA, USA, 2019, pp. 121-126.
- e. Liu, B., Tanksale, V. Guest editors "Int. J. Internet Technology and Secured Transactions", 9(4), 2019.
- f. Tanksale V., Yadon R., Perkins J. (2018) Design, Develop, and Deploy a Wellness Index Dashboard Utilizing Commonly Available Sensors in the Form of Wearable Technology to Monitor Heterogeneous Data. In: Bi Y., Kapoor S., Bhatia R. (eds) Proceedings of SAI Intelligent Systems Conference (IntelliSys) 2016. IntelliSys 2016. Lecture Notes in Networks and Systems, vol 16. Springer, Cham
- g. George-Palilonis, J., Hanley, M. and Tanksale, V. (2009). Research Informed Development for Interactive Media: Engaging Students with their Audiences Enhances Learning. In Worley, D. W., et. al. (Eds.), *Best Practices in Experiential and Service Learning in Communication*. Kendall/Hunt Publishing Company.
- h. Hanley, M., George-Palilonis, J., and Tanksale, V. (2008). Research-Informed Development for Interactive Media: Enhancing Learning by Engaging Students with Users. *Journal of Interactive Advertising*, 9(1).
- i. George-Palilonis, J., Smith, K., Smith, S. Hanley, M., Tanksale, V. and Flook, C. (2010). Creating Smartphone Interactive News and Advertising Content. *The Journal of the International Digital Media and Arts Association* 7(1): 45-54.
- j. George-Palilonis, J., Hanley, M. and Tanksale, V. (2009). Research Informed Design: Process, Experience, & Results from Students & Their Audiences. *The Journal of the International Digital Media and Arts Association*, 6(2), 37-47.
- k. Hanley, M., George-Palilonis, J., & Tanksale, V. (2008). *An Integrated Approach to Interactive Advertising and News Design Pedagogy Using the Informed Design and Research-Informed Development Models*. An abstract presented at the 2008 Direct Marketing Association Education Foundation Research Summit, Las Vegas, October 11.
- l. Jiang, F., Tanksale, V., Salama, P., King, B. (2014). A secure and efficient image transmission system for sharing an image with multiple parties, IUPUI Research Symposium 2014, Indianapolis, Indiana

## GRANTS

- a. Channel One (**\$741,190**) - Inbound Alerts Network -- Develop highly scalable database driven real-time alert system
- b. Center for Media Design and Emerging Media Faculty Fellow (**\$37,250**) – Software architect and lead software engineer for variety of internal and external projects.
- c. Security Measurements and Assuring Reliability through Metrics Technology (**\$18,000**) - This project was funded by the US Army Research Lab. Wayne and Dolores Zage were the PIs and I was a consultant on this project. I was responsible for security and vulnerability measurements of software systems, developing security metrics primitives, analysis of metric counts and vulnerability reports, and correlation between software design constructs and software vulnerabilities.
- d. Digital Forensics (**\$25,000**) - This project was funded by the Discovery group. I developed and taught an inter-disciplinary course in Digital Forensics. This course was the cornerstone of the digital forensics minor that I developed. Students from computer science, criminal justice and criminology, and social work took the course. Students learnt industry tools and techniques using hands-on labs and assignments.
- e. National Science Foundation, CNS - CRII CISE Research Initiation, **\$171,738**, Pending (submitted Sep. 2022, under review), CRII: SaTC: Deep Learning-Based Framework for Intrusion Detection in Vehicles
- f. Viewing+ (**\$13,550**) - Lead software developer for the Viewing+ Initiative (industry supported design, development, and research of interactive television applications). *This was an equipment grant.*
- g. LifeWerx: An Interactive Virtual Collaboration Environment - This project was funded by Rockwell Collins. I was a co-PI along with Dolores Zage and John Dailey. We used an existing virtual environment to build a virtual workplace for Rockwell Collins. The primary goal was to help them in their various software engineering processes.
- h. Interactive Television - As a follow up to the interactive television course that I co-taught in Spring 2006, I have been developing more interactive television projects with industry partners. Industry partners that are involved in these projects are Schematic, Yahoo, BBC, and Microsoft.
- i. Mobile Research - Design and Deploy various campaigns that use mobile devices. Examples of campaigns include text to win, newspaper polls, weather and traffic alert system, and media and content delivery. Analyze data and findings obtained through such campaigns.
- j. Mapping Caché Artifacts to Design Metrics Primitives (**\$19,000**) - This project was funded by Ontario Systems (Muncie, IN). We used design metrics primitives to count the software metrics for Caché systems, developed by Ontario Systems, in order to find a correlation between metrics and fault proneness in Caché systems.
- k. Electronic Teaching Consortium - This project was funded by the US Department of Education. Wayne Zage and Dolores Zage were the PIs from Computer Science, and I was a consultant on this project. We prepared instructional modules in object-oriented technologies that would be used in employee training.
- l. Interactive C-SPAN (**\$10,000**) - Develop an interactive television interface for cable television systems. Collaboration with Brandon Waite (Political Science)
- m. Personal Residential Automation Network Kit (**\$10,000**) - Develop a software architecture that allows consumers to travel with their home network.

- Collaboration with Mahesh Senagala (Architecture)
- n. Wi-Fi and Bluetooth based location detection system (**\$10,000**) - Use Wi-Fi and Bluetooth to accurately detect location. Collaboration with Paul Buis (Computer Science)
  - o. iMedia (**\$10,000**) - Develop interactive television and smart phone interfaces for delivering news, sports, entertainment, weather, and advertising information. Collaboration with Jennifer George-Palilonis and Michael Hanley (Journalism), Kirsten Smith (CICS), Suzy Smith and Christopher Flook (Telecommunications)
  - p. Remote Elderly Monitoring System (**\$10,000**) - Perform preliminary research on variety of sensors that collect behavioral data. Collaboration with Robert Yadon (Information and Communication Sciences) and Jane Ellery (Gerontology)
  - q. Educational Games for iPhone (**\$10,000**) - Develop three educational games for the iPhone (Chemistry, Political Science, and Computer Science). Collaboration with Jay Bagga (Computer Science)
  - r. Interactive Learning Space Initiative (**\$2,000**) - Teach multiple CS courses in ILS classrooms and conduct research on student learning.
  - s. Ball State Career Center Faculty externship at Genesys to enhance learning in CS courses (**\$3,500**)
  - t. Ball State Career Center Skills Infusion project for NACE competencies in CS courses
  - u. Business Fellows - Under my guidance, Ball State University students developed a web-based software system that helps police departments across the state keep track of their officer's training records over their entire career. This system helps police departments eliminate large amounts of paperwork and streamlines their reporting requirements to various state agencies.
  - v. News Research Institute - Provide technical assistance to the News Research Institute and Newslink Indiana
  - w. Lumina Foundation (**\$1,500**) - Paul Ranieri from the Department of English is the PI on this project. My part of the project was titled **Sustaining Learning in Early Major Computer Science Courses**. My work focused on improving the learning of students in CS 120 (Programming I) which is the first course taken by students majoring in computer science.

## CONFERENCE PRESENTATIONS

- a. V. Tanksale, "Intrusion Detection For Controller Area Network Using Support Vector Machines," presented at 2019 IEEE 16th International Conference on Mobile Ad Hoc and Sensor Systems Workshops (MASSW), Monterey, CA, USA
- b. Invited presentation on Blockchain at CES 2018, Las Vegas
- c. Technical Chair of IEEE Cloud Summit 2018 ICCE Conference
- d. Invited presentation on cyber-security at CES 2017, Las Vegas
- e. General Chair of IEEE Cloud Computing 2017 ICCE Conference
- f. George-Palilonis, J., Smith, K., Hanley, M., Tanksale, V., Smith, S. and Flook, C. (2010). "Enhancing digital content with a multimedia mobile news and advertising application: A case study," presented at the Newspapers & Community-Building Symposium XVI, Omaha NE.
- g. Tanksale, V., Waite, B., and Cooper, D. *Interactive C-SPAN*, Presentation at the EDUCAUSE Learning Initiative Conference as part of New Media Consortium's Horizon Report, Washington, D.C. Feb. 2011.
- h. Crutchfield, J., Tanksale, V., Meister, T., et al. *Microsoft Surface Application*

- Development*, Presentation at the Mobile/Virtual Learning Showcase at the EDUCAUSE Learning Initiative Conference, Austin, TX, Jan. 2010.
- i. *Collaboration & convergence: Merging diverse content in the interdisciplinary classroom*, Jennifer George-Palilonis, Vinayak Tanksale, & John Dailey, at the Convergence and Society: Media Ownership, Control, & Consolidation Conference in Columbia, SC, Oct 2007.
  - j. *Mobile Marketing*, Invited Presentation at the International Association of Business Communicators, Indianapolis, IN, Sep 2007.
  - k. *Sustaining Learning in Early Major Computer Science Courses*, poster presentation at the ACM SIGCSE conference in Houston, Mar 2006.
  - l. *Mapping Caché Artifacts to Design Metrics Primitives*, 2003 and 2004 International Conference on Software Engineering Research and Practice in Las Vegas, NV
  - m. *Vulnerability Analysis*, Presentation in Fall 2007 (Muncie, IN) and Spring 2007 (West Lafayette, IN) SERC Showcases
  - n. *Vulnerability Mapping*, Presentation in Fall 2006 SERC Showcase in Muncie, IN
  - o. *Security Measurements and Assuring Reliability through Metrics Technology*, Spring 2006 SERC Showcase in Schaumburg, IL
  - p. *Mapping Caché Artifacts to Design Metrics Primitives*, Spring 2002, Fall 2002, Spring 2003 SERC Showcases in Morgantown, WV and Muncie, IN
  - q. *Adapting Design Metrics Technology to Object Oriented Systems*, Fall 2001 SERC Showcase in Muncie, IN

## SCHOLARSHIP SUMMARY

Scholarship is vital to the overall success of the faculty member and educational institution. I strongly believe that scholarship, learning, and engagement are the three pillars of a successful faculty member's portfolio. Fundamental scholarship as well as applied scholarship are equally important. My extensive research experience includes both types of scholarships. **External (\$791,740)** and **internal (\$129,250) funding** of my research projects is evidence of my continued commitment to advancing goal 4 of Ball State University's Destination 2040 Strategic Plan.

My research journey began in summer 2022 with an external grant from a local Muncie-headquartered company, Ontario Systems. Their grant funding helped me design better software quality metrics for their products and the results of my work were disseminated through two conference publications. My initial research agenda focused on software architecture and security. My research in these areas was funded by the US Army Research Lab, Raytheon Corporation, and US Department of Education.

In 2006, Ball State University founded the Center for Media Design through a grant from the Eli Lilly endowment. I saw an opportunity to conduct applied research in the areas of interactive and emerging media that was supported by software and media companies. As a Faculty Fellow in the Center for Media Design, I was tasked to be the software architect and lead software engineer on a multitude of internal and external projects. The Lilly grant also enabled the beginning of a 7-year interdisciplinary immersive course (CS, TCOM, Journalism) which won multiple national and regional awards. The course also produced multiple journal articles, a book chapter, and multiple conference presentations.

After commencing the Ph.D. program in Purdue West Lafayette's School of

Electrical and Computer Engineering, I turned my focus to fundamental research. My dissertation titled 'Intrusion Detection System for Controller Area Network' was the culmination of my research that applied deep learning algorithms to design and validate security countermeasures for vehicles. This research focused on a specific type of recurrent neural network, called Long Short-Term Memory, to design anomaly detection functions. It also focused on developing a decision engine, that used the output of multiple LSTM networks to determine if intrusion is occurring. This research was disseminated using two IEEE peer-reviewed journal articles and two peer-reviewed IEEE conference proceedings. Another peer-reviewed journal article is currently under review and consideration.

In my current role, my plan is to expand upon my Ph.D. research and use my extensive experience in fundamental and applied research to tackle problems using machine learning algorithms. I intend to focus on more types of neural networks (convolution and recurrent) to design security solutions for temporal-based systems. To this effect, I have recently submitted a grant proposal to the National Science Foundation for \$171,738. I plan to employ undergraduate students, through the Teacher-Scholar program, to design procedures, build experiments, and publish findings of my ongoing research. My objective is to ensure that my research furthers Ball State's mission and helps Ball State achieve its strategic plan goals.

## **TEACHING SUMMARY**

Problem solving is the most important skill that any computing professional should possess. Through my 21+ years of teaching in higher education, my most important goal has been to develop excellent problem-solving skills in all my students. To achieve this goal, there are three vital principles to my teaching philosophy:

- Inspire students to comprehend the essential concepts of computer science
- Promote analytical, logical, and critical thinking skills in students
- Enhance students' independent learning skills

I utilize a variety of teaching and learning techniques to implement the principles outlined above. I strongly believe that each course requires a unique strategy to meet its learning objectives. Hands-on labs and projects are an integral part of a course in cybersecurity and digital forensics. A course in multitier software architectures requires that students not only know the software development tools but can also successfully work in teams of students from diverse educational backgrounds. Courses in networking and systems require that students learn the relevant concepts and implement these concepts using labs and projects. Hands-on learning is one of the pillars of my pedagogy. I write code or run simulations or build and test network architectures while I am lecturing in class. I encourage (sometimes require) students to mirror my activities by way of in-class-exercises. I strongly believe that students learn best by doing things themselves as opposed to simply observing someone else do them. Assessment of student work is very important and hence I make sure that all my assessments are fair and that they evaluate students' holistic learning. I have utilized rubrics, stand-ups, peer evaluations, analytical memos, reflective essays, and other techniques for student assessment. Similar to learning strategies, each course requires the use of a combination of multiple assessment techniques. I am confident that all forms of communication skills are vital to a student's success in life. I foster and build communication skills by encouraging teamwork, stressing the importance of listening

to others and requiring oral presentations and written reports. Being a mentor to students is equally important to me. I understand that students look up to their professors as role models and I strive to live up to those expectations. I have mentored students to choose the career path that is most appropriate for them. I have facilitated student teams working with external client partners as part of immersive learning courses. Students have discussed their personal and professional goals with me, and I have always done my best to guide them appropriately.

Finally, assessment of my teaching is of paramount importance to me. My teaching has been regularly assessed by my chairperson and my peers. I strongly support mid-semester assessment of courses. I encourage students to provide me with constructive criticism. I have consistently adjusted my teaching and learning techniques based on feedback from the above mechanisms. Richard P. Feynman has said "What I cannot create, I cannot understand". The IEEE's mission is Advancing Technology for Humanity. I will continue to help students build foundational knowledge and be better problem solvers so that they can make the world a better place for all humanity.

### **Learning Practices**

- a. Interactive Learning Spaces
- b. Studio-based learning
- c. Project-based learning
- d. Inter-disciplinary courses
- e. Immersive learning
- f. Peer instruction
- g. Pair programming

### **New programs/courses**

- a. CS 447      Network Security
- b. CS 249      Digital Forensics
- c. CS 397      Multi-tier Software Architectures
- d. CS 203      Introduction to Computer Security
- e. CS 320      Mobile Application Development
- f. CS 614      Web Programming
- g. CS 616      Digital Animation
- h. CS 629      System Administration

### **Academic Certifications**

- a. Machine Learning Foundations
- b. Machine Learning for Natural Language Processing
- c. Data Analytics
- d. Cloud Operations
- e. Cloud Security Foundations
- f. Cloud Developing
- g. Cloud Architecting



## **SERVICE AND ENGAGEMENT**

Service to and engagement with the professional and local community is of paramount importance to me. Throughout my academic career, I have volunteered to be an active member of at least two departmental committees each year. I believe in contributing to enhancement of student learning by participating in curriculum committees where course content is developed and assessed. I was honored to be invited to serve on the Associate Provost's faculty advisory council for 4 years. I am honored to currently serve on the CSH Dean's faculty advisory council.

Being an active member of professional organizations such as the ACM and IEEE keeps me abreast of the latest developments in learning and scholarship. It also facilitates scholarly endeavors and contributes to the overall benefit of the profession. Having chaired two IEEE conferences, I was able to connect with a lot of scholars in cloud computing. Being a member of the industry working group OEDN, I was able to facilitate internships and jobs for computer science students in media and entertainment companies such as Disney, Pixar, etc.

Apart from service to the professional community, I strongly believe in volunteering in the community that we live in. I have been an executive board member of middle and high school parent teacher organizations for the last 4 years. Examples of my immersive learning project partners include The Muncie Star Press, The City of Muncie, Logansport Police Department, and WIPB. Nurturing ties with the local community is mutually beneficial and advances Ball State's strategic plan goals.

### **Service to academia**

- a. Technical Chair of IEEE Cloud Summit 2018 ICCE Conference
- b. General Chair of IEEE Cloud Computing 2017 ICCE Conference
- c. 2008 - 2012 member (**by invitation**) of Dr. Robert Morris' (Dean of Graduate School and Associate Provost) university-wide Faculty Advisory Council on Scholarship
- d. 2022 – 2023 member of CSH Dean's Faculty Advisory Council
- e. 2021 – 2022 chairperson of departmental non-tenure-line promotion committee
- f. 2022 – 2023 member of departmental academic curriculum committee
- g. 2012 - 2018 chairperson of departmental service courses academic curriculum committee
- h. 2022 – 2023 secretary of departmental social media committee
- i. 2021 – 2022 member of departmental social media committee
- j. IEEE Member
- k. ACM Member

### **Service to the community**

- a. Treasurer, Carmel High School Parent Teacher Organization, 2022-23
- b. President, Creekside Middle School Parent Teacher Organization 2022-23, 2021-22
- c. Treasurer, Creekside Middle School Parent Teacher Organization 2019-20

## **MEDIA PRESENCE**

- a. CBS4 Live interview for CBS Special on March 25, 2020, Topic: Fact-Checking Social Media Rumors and Responsible Internet Usage
- b. Technology advancements lead to crack in IMPD officer evidence tampering investigation – Fox 59 10 pm news interview and article - <http://fox59.com/2017/11/30/technology-advancements-lead-to-crack-in-impd-officer-evidence-tampering-investigation/>
- c. Online shopping breeds caution – Article in Fulton County Expositor, Nov 2017 - <http://www.fcnews.org/news/10976/online-shopping-breeds-caution>
- d. New device by Marywood team would monitor elderly in their homes – Article in The Times-Tribune, May 2010 -- <http://thetimes-tribune.com/news/business/new-device-by-marywood-team-would-monitor-elderly-in-their-homes-1.819808>
- e. A Room With A View+: Ball State Launches Real-World Interactive TV Lab, Teams With Industry Players – MediaPost’s Media Daily News – Nov. 2010
- f. The New News -- How television news is being transformed by a class at Ball State University - and by the click of a mouse – Article in American Way magazine, Sep 2007 -- <http://www.americanwaymag.com/tabid/2855/tabidext/3275/default.aspx>
- g. Featured in BSU television commercial
- h. Featured in Ball State Bold Video and Brochure
- i. Indianapolis Business Journal Article – “Students INC., Ball State hopes for gold as students follow profs into new media ventures” Jan 10, 2009
- j. Ball State breaks into new market with Frog Baby Apps, Article in the BSU Daily News, Mar 2011 -- <http://www.bsudailynews.com/news/ball-state-breaks-into-new-market-with-frog-baby-apps-1.2513553>
- k. Tune in Tomorrow – BSU Web site article -- <http://cms.bsu.edu/Features/Global/ImmersiveLearning/TuneInTomorrow.aspx>
- l. Wanted: Hybrid Professionals – Interactive media project is leading television industry’s evolution – Article on the BSU web site -- <http://cms.bsu.edu/Features/Global/ImmersiveLearning/HybridProfessionals.aspx>
- m. Campus Expo Magazine Feature – Wireless Security on College Campuses
- n. Daily News Article – “10 years and still Googling” Sep 30, 2008
- o. Star Press Article – “Law enforcement gets FBI training at Ball State” Thu May 15, 2008
- p. Class redefines TV viewing -- Student group works to program interactive, hand-held devices – Article in the BSU Daily News, Apr 2008 -- <http://media.www.bsudailynews.com/media/storage/paper849/news/2008/04/03/News/Class.Redefines.Tv.Viewing-3300066.shtml>
- q. Article in the Logansport Pharos Tribune on the Business Fellows project
- r. Interview and Comments in the Muncie Star Press on Phishing and e-mail hoaxes
- s. Students create interactive broadcast -- Class works to produce user-controlled content with NewsLink Indiana, Article in the BSU Daily News, Apr 2007 -- <http://media.www.bsudailynews.com/media/storage/paper849/news/2007/04/27/News/Students.Create.Interactive.Broadcast-2885193.shtml>

## **AWARDS**

- a. Named to the top 50 Technology in Education Innovators in the nation by the Center for Digital Education
- b. First Runner-up in the 2009 AT&T Big Mobile on Campus Challenge
- c. 2012 TechPoint MIRA Award Finalist in the Education Contribution to Technology – Individual category
- d. 2011 TechPoint MIRA Award Finalist in the Education Contribution to Technology – Individual category
- e. Considered for a National Emmy Award Nomination, June 2006
- f. Graduate Assistant Award for Outstanding Teaching. Purdue University. 2000 – 2001
- g. Outstanding Teaching Assistant Award. Computer Science, Purdue University. 2000 - 2001
- h. Outstanding Teaching Assistant Award. Computer Science, Purdue University. 1999 – 2000