

# Yi (Joy) Li | Curriculum Vitae

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## Education

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- **University of Louisville** **Louisville, KY, USA**  
*Ph.D. Computer Science and Engineering, GPA: 3.95/4.0* *2012–2018*
- **University of Louisville** **Louisville, KY, USA**  
*M.S. Computer Engineering and Computer Science, GPA: 3.85/4.0* *2010–2012*
- **Communication University of China** **Beijing, China**  
*B.S. Optical Information and Technology, GPA: 3.6/4.0* *2006–2010*

## Employment History

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- **Assistant Professor** **Kennesaw State University, GA, USA**  
*Department of Software Engineering and Game Development* *Jan. 2019 – Present*
  - Performing teaching, research, and service activities as tenure-track faculty;
  - Assistant professor of computer game design and development;
  - Faculty director of the Realities Laboratory
- **Limited Term Assistant Professor** **Kennesaw State University, GA, USA**  
*Department of Computer Science* *Aug. 2018 – Dec. 2018*
  - Taught undergraduate courses in both Computer Science and Game Development programs;
  - Courses include Computer Organization & Architecture, Algorithms, and Fundamentals of Game Design.
- **Part-time VR Developer** **University of Louisville, KY, USA**  
*Department of Computer Engineering and Computer Science* *Jan. 2018 – Jul. 2018*
  - Developed cross-platform healthcare virtual reality gaming apps using Unity;
  - Designed physical training session for rehabilitation for elderly people;
  - Served as team leader, worked with business/marketing team & therapists at Hive by Kindred Healthcare.
- **Part-time Web App Developer** **Louisville, KY, USA**  
*FirstBuild by GE Appliances* *Jun. 2016 – Dec. 2017*
  - Developed web/mobile app for Giddy/FirstBuild branding using JavaScript React, Redux, and React-native;
  - Localization for FirstBuild Shanghai.
- **Graduate Teaching Assistant** **University of Louisville, KY, USA**  
*Department of Computer Engineering and Computer Science* *Aug. 2014 – May. 2018*
  - Co-instructor and Teaching Assistant for Program Design in C/C++;
  - Teaching Assistant for Object Oriented Program Design with Java;
  - Developed affective games with virtual reality in Unity to evoke emotional responses;
  - Conducted experiments to measure user physiological reactivities to virtual reality;
  - Wrote dissertation on new mechanism of designing VR game interactive with user emotions;
  - Interned and developed rehabilitation training game app in VR for elderly people.

- Graduate Researching Assistant** **University of Louisville, KY, USA**  
*Visualization and Intensive Graphics Lab* *Aug. 2010 – May. 2012*

  - Assisted visualization research on Xbox, Kinect and Unity 3D projects;
  - Developed a hand gesture recognition system with Xbox Kinect Sensor;
  - Published two papers based on the research and obtained MS degree.
- Student Research Project Leader** **Beijing, China**  
*Department of Photoelectric Physics, Communication University of China* *Sep. 2008 – Jun. 2010*

  - Obtained funding from Undergraduate Innovative Experiment Program of China;
  - Led a group of five students under direction of a professor, doing research on optical thin film;
  - Obtained BS degree based on the research result.

## Awards

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- NSA GenCyber 2022 Capacity Build** **2022-2024**  
*GenCyber: Middle School Cybersecurity Education via Virtual Reality*
- NSA Cybersecurity Pathways Coalition Sub Award** **2022-2023**  
*VR Support for Cybersecurity Workforce Development*
- NSF Award 1850438** **2022-2023**  
*CRII: CHS: Adaptive Virtual Environments for a Prolonged Exposure Therapy of Attention Deficits on Autism Spectrum*
- Best Paper Award** **Innovations in Medical Education 2021**  
*TrainingXR Workshop at IEEE Virtual Reality 2021* *Mar. 2021*
- Best of Cool Ideas Award** **IEEE Virtual Reality Conference 2021**  
*Stephen Abrahamson Award for Innovation* *Feb. 2021*
- Recipient of Innovative Course in Computing for CCSE** **Kennesaw State University, GA**  
*Awarded \$4,000 for Special Topic Course* *Oct. 2019*
- Recipient of FY20 Seed Grant** **Kennesaw State University, GA**  
*Awarded \$14,930 for establishing a seed research project* *Jul. 2019*
- Recipient of Student Travel Fund** **Denver, CO**  
*The International Society for Neurofeedback and Research (ISNR) 23rd Conference* *Sep. 2015*
- Recipient of Graduate Research Fund** **University of Louisville**  
*GSC Executive Committee* *Mar. 2015*
- Second Place of Best Student Paper Award** **CGames USA 2014 Conference**  
*TCSIM IEEE Best Student Paper Award* *Jul. 2014*
- Provost Fellowship Recipient** **University of Louisville**  
*The most prestigious university-wide scholarship at University of Louisville* *Aug. 2012 – Jul. 2014*
- CECS Master of Science Award** **University of Louisville**  
*Highest cumulative scholastic standing in the departmental MS program* *Apr. 2012*

## Publications

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Y. Li, E. M. Sokhadze, and A. S. Elmaghraby, "Affective virtual reality exposure with physiological monitoring: application for emotional reactivity testing in autism," in *NeuroRegulation*, vol. 2, pp. 182–183, Dec. 2015.

Y. Li, A. S. Elmaghraby, A. S. El-Baz, M. F. Casanova, and E. M. Sokhadze, "Virtual reality as a tool

- for investigation of autonomic reactivity in autism," in *Applied Psychophysiology and Biofeedback*, vol. 41, pp. 444–444, Springer, Dec. 2016. Issue: 4.
- Y. Li, "Hand gesture recognition using Kinect," in *2012 IEEE International Conference on Computer Science and Automation Engineering*, pp. 196–199, June 2012. ISSN: 2327-0594.
- Y. Li, "Multi-scenario gesture recognition using Kinect," in *2012 Computer Games: AI, Animation, Mobile, Multimedia, Educational and Serious Games (CGAMES)*, pp. 126–130, July 2012.
- Y. Li, "Designing interactive virtual environments with feedback in health applications.," *Electronic Theses and Dissertations*, May 2018. Paper 2983.
- Y. Li and A. S. Elmaghraby, "A framework for using games for behavioral analysis of autistic children," in *2014 Computer Games: AI, Animation, Mobile, Multimedia, Educational and Serious Games (CGAMES)*, pp. 1–4, July 2014.
- Y. Li, A. S. Elmaghraby, A. El-Baz, and E. M. Sokhadze, "Using physiological signal analysis to design affective VR games," in *2015 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT)*, pp. 57–62, Dec. 2015.
- Y. Li, A. S. Elmaghraby, and E. M. Sokhadze, "Designing immersive affective environments with biofeedback," in *2015 Computer Games: AI, Animation, Mobile, Multimedia, Educational and Serious Games (CGAMES)*, pp. 73–77, July 2015.
- E. M. Sokhadze, F. Manuel, D. L. K. Casanova, G. E. Sokhadze, Y. Li, A. S. Elmaghraby, and A. S. El-Baz, "Virtual reality with psychophysiological monitoring as an approach to," in *Autism Imaging and Devices*, CRC Press, 2017.
- J. Zhang, M. Mullikin, Y. Li, and C. Mei, "A methodology of eye gazing attention determination for VR training," pp. 138–141, Mar. 2020.
- C. Baxter, E. M. Sokhadze, and Y. Li, "Affective virtual reality game for depression symptoms detection using psychophysiological and behavioral measures," in *Proceedings of the 2020 ISNR Annual Conference*, vol. 7, pp. 173–174, Dec. 2020.
- C. Zhang, H. Luo, and Y. Li, "Depression detection using virtual reality: a literature review," in *Proceedings of the 54th Hawaii International Conference on System Sciences(HICSS)*, pp. 4001–4008, Jan. 2021.
- Y. Li, H. Luo, and C. Zhang, "Empathy games for depression using virtual reality: a literature review and a study design," in *Proceedings of the 54th Hawaii International Conference on System Sciences(HICSS)*, pp. 4009–4018, HICSS, Jan. 2021.
- Y. Li, C. Ducleroir, T. Stollman, and E. Wood, "Parkinson's Disease simulation in virtual reality for empathy training in medical education," in *2021 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*, (Atlanta, GA, USA), pp. 56–59, Mar. 2021.
- Y. Li and H. Luo, "Depression prevention by mutual empathy training: using virtual reality as a tool," in *2021 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*, (Atlanta, GA, USA), pp. 60–63, Mar. 2021.
- Y. Li, C. Zhang, and H. Luo, "Using mixed reality in k-12 education: A literature review," in *AMCIS 2021 Proceedings. 22*, (Montreal), p. 1728, Aug. 2021.
- E. Mekbib, Y. Huang, C. Mei, and Y. Li, "Designing a smart virtual environment for autism spectrum disorder detection," in *2021 IEEE SmartWorld, Ubiquitous Intelligence & Computing, Advanced & Trusted Computing,*

*Scalable Computing & Communications, Internet of People and Smart City Innovation*, (Atlanta, GA, USA), pp. 288–294, Oct. 2021.

V. Malladi, Y. Li, M. Siddula, D. Seoand, and Y. Huang, “Decentralized aggregation design and study of federated learning,” in *2021 IEEE SmartWorld, Ubiquitous Intelligence & Computing, Advanced & Trusted Computing, Scalable Computing & Communications, Internet of People and Smart City Innovation*, (Atlanta, GA, USA), pp. 328–337, Oct. 2021.

Y. J. Li, Z. Li, and C. Zhang, “Learning-by-Teaching in CS Education: A Systematic Review,” Jan. 2022. Accepted: 2021-12-24T17:25:02Z.