

Noella A. Kolash

Ph.D. Candidate

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Skills



Interests

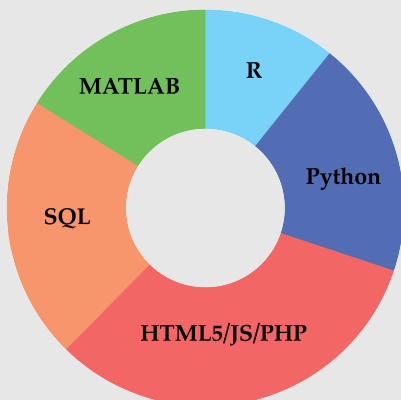
Accessibility

Usability

Deaf Education

Human Computer Interaction

Languages



Interests

My research interests focus on accessible and educational technology and human-computer interaction for the Deaf and Hard of Hearing. Currently, I am focused on improving accessibility for people who are deaf by selecting culturally understandable icons.

Education

Expected Spring 2025 **Rochester Institute of Technology**
 Ph.D., Computing and Information Sciences
 GPA: 3.76

RIT

2013 **Rochester Institute of Technology**
 B.S., Information Technology
 GPA: 3.37

RIT

Experience

Jan 2022 Present **Junior Full Stack Software Engineer**

Technology & Information Services

Rochester Institute of Technology

Design and author source code for the approximately (45) unique, custom-authored business and academic applications that support NTID's financial, HR, Student Information, and Federal reporting requirements and create specialized instructional support applications for use by NTID's Faculty, Staff, and Students. Execute the architecture, design, authoring, and implementation of custom application development to support funded grants, including Open Source and Software as a Service used by NTID/RIT and the general public. Works closely with NTID's internal partners in all stages of the software development lifecycle, ensuring that Information Security requirements for application development, deployment, underlying architecture requirements, and source code control are met and maintained throughout the applications' lives.

RIT

April 2019 Jan 2022 **Customer Care Tier II**

National Customer Care Call Center

Sorenson Communications

Provide support for Sorenson customers and businesses for the functionality and features of all Sorenson products and services. The videophone system processes incoming and outgoing to support Sorenson customers and business. Identify, investigate, and document Sorenson customers' reported software, hardware, or usability issues. Provide recommend personalized solutions to Sorenson customers. We reported the issues through Customer Records Management (CRM), Bug Tracking Software, or compiling an email to the quality assurance or usability team. Collaborate with other highly technical employees to find current solutions for our installed software in OS environments, including Android, iOS, MacOS, or Windows.



Aug 2016 May 2019 **Graduate Research Assistant**

Rochester Institute of Technology

NTID Research Center for Teaching & Learning

Developing MarsU, a Digital Game-Based Learning (DBGL) video game to teach Deaf and hard-of-hearing students to learn undergraduate introductory statistics. MarsU covers population and sampling by reading polls for the Student Government election. The game is still a work in progress to cover the following concepts: Categorical & Numerical, Bias & Random, Mean & Standard Deviation, and Proportion & Percent.



Jan 2016 - Aug 2016 **Graduate Research Assistant**

Rochester Institute of Technology

NTID Center on Access Technology

Developed a working prototype of Closed Sign Language for flipped classroom videos. They enabled the power to the viewers to activate Sign Language on the lecture video. The software also allows the viewer to enable Closed Captions. The viewer may enable Sign Language and Closed Captions while watching video lectures.



May 2015 - Dec 2015 **Graduate Research Assistant**

Rochester Institute of Technology

NTID Center on Access Technology

Developed a working prototype of Accessible Communication for Everyone (ACE), a video calling platform for sign language (ASL) direct call centers. The Federal Communications Commission backs the project. ACE is an open-source platform that will include standards for existing Telecommunications Relay Service (TRS) providers—provided a formal presentation of the working prototype directly to FCC Chairman Tom Wheeler, FCC Commissioner Ajit Pai, and other FCC staff. As a result, RIT received an award of \$304,464 to release ACE software to the public in the Spring of 2016.





Aug 2014 - Graduate Research Assistant

May 2015 *Rochester Institute of Technology*

Center for Accessibility and Inclusion Research

Explored into Sign-Language-Recognition Intelligent Personal Assistant for Appointment Creation using various input gestures devices such as Leap Motion controller, Intel RealSense 3D, Microsoft's Kinect, and Myo armband.



Nov 2011 - Graduate Research Assistant

Aug 2014 *Rochester Institute of Technology*

Information and Computing Studies Department

Performed research and implementation of multi-video capture and streaming for Professor Raja Kushalngar's research project on developing an Accessible View Device prototype. Developed programs with JavaScript, PHP, MySQL, Apache, and HTML5 languages with the ability to record and playback video in a way that is similar to the concept of DVR. Poster presentation at Imagine RIT and 2012 Grace Hopper Celebration of Women in Computing.



Aug 2010 - Tutor and Teacher Assistant

Nov 2011 *Rochester Institute of Technology*

Information and Computing Studies Department

Responsible for direct tutoring for deaf and hard of hearing students through ASL and visual explanations with whiteboard and slides. I also explained associated concepts and tools that were difficult to understand through interpreters. Administered exams for programming fundamentals course.



Jan 2009 - Outreach Representative

Nov 2009 *New York State Outreach Team*

Purple Communications, Inc.

Provided workshops to diverse audiences about how Wi-Fi works and how to use it—installed Wi-Fi routers and wireless video phones at customers' homes—provided personalized education for customers on how to use video phone technology.

Teaching

RIT/NTID Advanced Tech Careers

Introduction to Video Game Design and Development Workshop

Summer 2024

RIT Tiger Gaming League

Introduction to Video Game Development Workshop

Spring 2024

NTID Courses: Direct Instruction

Introduction to Web Development - NACT-170

Spring 2018

Minerva DeLand School: Teacher

American Sign Language Instructor

Fall 2017

RIT Courses: Teacher Assistant

Computer Problem Solving for the Information Domain II - ISTE-121

Fall 2017

NTID Courses: Teacher Assistant

Programming Fundamentals - 0805-390

Fall 2011

Research

Peer-Reviewed Papers, Published in Conference Proceedings¹

Raja S. Kushalnagar, Brian P. Trager, Karen B. Beiter, and Noella A. Kolash. **American Sign Language: Maximum Live Replay Speed.** In Rehabilitation Engineering and Assistive Technology Society of North America, pages 1–4, Seattle, WA, June 2013. RESNA. doi: 10.13140/2.1.3841.1208 [50% Acceptance rate]

Conference Posters and Presentations

Noella A. Kolash **Digital Game-Based Learning Tool for Deaf Learners: A Pilot Study.** In *Center for Emerging and Innovative Sciences 18th Annual University Technology Showcase*, Rochester, NY, 2018

Noella A. Kolash **MarsU: Usability Study of a Digital Game Based Learning Tool for Deaf Learners.** In *CRA Grad Cohort Workshop for Underrepresented Minorities and Persons with Disabilities*, San Diego, CA, 2018

Noella A. Kolash **Creating Digital Game-Based Learning Tool for Learning Statistics: An Exploratory Project to Benefit Deaf and Hard-of-Hearing Students.** In *GCCIS Research Showcase*, Rochester, NY, 2017

Noella A. Kolash and Angela M. Guerri. **Creating Supplemental Online Learning Tools for Learning Statistics: An exploratory project to Benefit Deaf and Hard-of-Hearing Students.** In *NTID Student Research Fair*, Rochester, NY, 2017

Noella A. Kolash. **Creating Tools for Learning Statistics: An exploratory project to Benefit Deaf and Hard-of-Hearing Students.** In *Society for Research in Child Development (SRCD) Biennial Meeting*, Austin, TX, 2017

Noella A. Kolash, Poorna Kushalnagar, and Raja S. Kushalnagar. **Accessible Viewing Device Eye-Tracking.** In *RIT Undergraduate Symposium*, Rochester, NY, 2013

Noella A. Kolash and Raja. S. Kushalnagar. **Accessible Viewing Device.** In *Grace Hopper Celebration of Women in Computing*, Baltimore, MD, October 2012

Noella A. Kolash and Raja. S. Kushalnagar. **Accessible Viewing Device: Implementing Functionality through JQuery.** In *RIT Undergraduate Symposium*, Rochester, NY, August 2012

Invited Panels

Carol Marchetti, Gary Blatto-Vallee, Susan Foster, Jane Jackson, Jacqueline McClive, Keith Mousley, David Simkins, Noella A. Kolash, Ju-Lee Wolsey and M. Diane Clark. **Two Labs Discussing Their Structure and What They Are Looking For/Hope to Do in Their Mentoring.** In *Society for Research in Child Development (SRCD) Biennial Meeting*, Austin, TX, 2017

Technology Demonstrations

Noella A. Kolash, Kasmira Patel, Gary W. Behm, Brian P. Trager, and Raja. S. Kushalnagar. **Accessible Communication for Everyone - Prototype.** In *Federal Communications Commission*, Washington, DC, July 2015.

Raja. S. Kushalnagar, Karen B. Beiter, and Noella A. Kolash. **Accessible Viewing Device: Image Views.** In *Imagine RIT Innovation and Creativity Festival*, Rochester, NY, May 2014.

¹Premier conferences in computer science and human-computer interaction (e.g., ASSETS, CSCW, CHI, IUI, UIST) are highly selective and intended for archival papers only. These conferences often exceed journals in their selectivity, visibility, and impact. Submissions undergo multiple rounds of review before being accepted for publication. Please see <http://portal.acm.org/citation.cfm?id=1743546.1743569> (REF-1) for a study comparing the impact of conference papers and journals in these areas. When appropriate, the acceptance rate appears in brackets following each citation.

Raja S. Kushalnagar, Brian P. Trager, Karen B. Beiter, and Noella A. Kolash. **Eye Gaze Control Using the Accessible Viewing Device**. In *Imagine RIT: Innovation and Creativity Festival*, Rochester, NY, May 2013

Raja S. Kushalnagar, Brian P. Trager, Karen B. Beiter, and Noella A. Kolash. **Accessible Viewing Device - Live Replay**. In *Imagine RIT: Innovation and Creativity Festival*, Rochester, NY, June 2012

Selected News Articles and Videos

RIT University News. Research at RIT: Effective Assistive Technology Initiative, 2015.
URL: http://youtu.be/Acyce_MWupw

RIT University News. Effective Assistive Technology, 2013. URL: <http://youtu.be/22vi51MLhBE>

RIT University News. Undergraduate Research Symposium, 2012. URL: <http://goo.gl/OSvijh>

Service - Professional and Community

Deaf Related Community Committees

Board Member , Austine School for the Deaf Museum	2024 - Present
Law Chair , Austine School for the Deaf Museum	2024 - Present
Law Chair , Rochester Recreation Club for the Deaf	2024 - Present
Member , We the Deaf People, Rochester’s Advisory Group	2018 - Present
Member , Deaf Patient and Family Advisory Council, Strong Memorial Hospital	2018 - Present
Advocate , We the Deaf People, Inc.	2016 - Present
National Chair , Deaf Task Force on Police and Emergency Services	2017 - 2019
Silent Auction Chairperson , Benefit Event: Haunted Clubhouse, We the Deaf People, Inc.	2017
Recruitment Director , Alpha Sigma Theta, Inc.	2012-2013
Web Developer , Alpha Sigma Theta, Inc.	2009-2013
President , NTID Student Congress	2008
President and Founder , Orange and Brown Coalition	2007
Public Relations Director , Eyesfest, Gallaudet University	2005