

# Noella A. Kolash

Ph.D. Candidate

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## Skills



## Interests

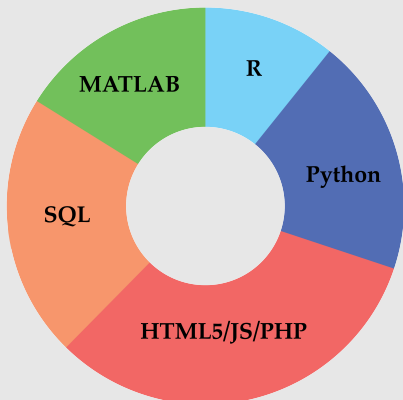
Accessibility

Usability

Deaf Education

Human Computer Interaction

## Languages



## Interests

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

## Education

Expected Spring 2023 **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 **Applications Software Engineer**

RIT

Present

*Technology & Information Services*

**Rochester Institute of Technology**

Develop, create, and modify general computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design software or customize software for client use with the aim of optimizing operational efficiency. Analyze and design databases within an application area, working individually or coordinating database development as part of a team.

April 2019

**Customer Care Tier II**

Sorenson

Jan 2022

*National Customer Care Call Center*

**Sorenson Communications**

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

Aug 2016

**Graduate Research Assistant**



May 2019

*Rochester Institute of Technology*

**NTID Research Center for Teaching & Learning**

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

Jan 2016 -

**Graduate Research Assistant**

cat

Aug 2016

*Rochester Institute of Technology*

**NTID Center on Access Technology**

Developed working prototype of Closed Sign Language for flipped classroom videos. Enabled the power to the viewers to activate Sign Language on the lecture video. The software also offers the viewer to enable Closed Captions. The viewer may enable Sign Language and Closed Captions at the same time while watching video lecture.

May 2015 -

**Graduate Research Assistant**

cat

Dec 2015

*Rochester Institute of Technology*

**NTID Center on Access Technology**

Developed working prototype of Accessible Communication for Everyone (ACE), a video calling platform for sign language (ASL) direct call centers the project is backed by Federal Communications Commission. ACE is open-source platform that will include standards for existing Telecommunications Relay Service (TRS) providers. Provided formal presentation of the working prototype directly to FCC Chairman, Tom Wheeler and FCC Commissioner, Ajit Pai and other FCC staffs. As a result, RIT received award of \$304,464 to release ACE software to public in Spring 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 the video 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 router and wireless video phones at customers home. Provided personalized education for customers.

## Teaching

### 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 Proceedings<sup>1</sup>

<sup>1</sup>Premier 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. **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.

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](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

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