

Nicole Lehrer

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Relevant experience

Participant at the Recurse Center

- X-Code command line tools in Objective-C - practiced parsing user input and calling APIs from the terminal.
- Graph visualization in Swift - Draws a graph, lets the user select start and end nodes, and animates the resulting path found based on a breadth first search.
- Palette picker - User can enter an artist's name to search for a sample artwork, which is analyzed to draw a color histogram. The histogram provides a color palette with which the user can draw.
- SocketTicTacToe - IOS app in Objective-C and Swift that uses Socket.IO and a node server to create a multiplayer Tic-Tac-Toe game.

May 2015 -
Aug 2015

Developer for Aural Analytics on mobile app for speech therapy

- Worked with engineering and therapy leads to conceptualize IOS apps for remote speech therapy between therapist and patient
- Implemented front end in Objective-C
- Therapist application placed in the finalist round of the 2014 Vodafone Wireless Innovation Competition

Jan 2014 -
May 2015

Developer and graduate researcher on a mobile app for monitoring progress in physical therapy

- Conceptualized and implemented an IOS application for physical therapists to capture, edit, annotate and organize videos of patient movement
- Implemented full application in Objective-C
- Used by 2 physical therapists during 6 mo. multi-site clinical study

Aug 2008 -
Dec 2014

Developer and graduate researcher on interactive feedback for upper extremity stroke therapy

- Conceptualized and implemented Mac OS application plug-ins for generative visual feedback mapped to movement data from stroke survivors
- Implemented in Objective-C and OpenGL
- Plug-ins used in a 24 mo. clinical study with 10 stroke survivors and a 6 mo. multi-site clinical study with 8 stroke survivors

Aug 2008 -
Dec 2014

Skills

Objective-C, Swift, X-Code, Mac OS, IOS, Git & GitHub, Bash, Matlab
Photoshop, Illustrator, Final Cut

Education

Ph.D. in Media Arts and Sciences

School of Arts, Media and Engineering at Arizona State University

Dissertation: Applied Interdisciplinary Concepts for Designing Visual Media Within Interactive Neurorehabilitation Systems

Aug 2008 -
Dec 2014

Bachelor of Science in Engineering in Biomedical Engineering

School of Engineering at Tulane University

Bachelor of Fine Arts in Painting

School of Liberal Arts and Sciences at Tulane University

Aug 2003 -
May 2008

Scholarships & Fellowships

- National Science Foundation Integrative Graduate Education Research Traineeship (NSF-IGERT) Fellowship for graduate study at Arizona State University
- Science Foundation of Arizona Research Fellow for graduate study at Arizona State University
- Dean's Honor Scholarship for full tuition for undergraduate study at School of Engineering, Tulane University

Aug 2010 -
July 2013

Aug 2008 -
July 2010
Aug 2003 -
May 2007