MOLOUD NASIRI

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EDUCATION

Ph.D., Human-Centered Computing

Jan. 2019 – August 2023   Clemson University, Clemson, USA

- Dissertation Title: The Effect of Prior Virtual Reality Experience on Locomotion and Navigation in Virtual Envi-ronments
  Supervisor: Dr. Andrew Robb
- Selected Courses: Human and Computer Interaction, Measurement and Evaluation Methods, Virtual Reality Sys-tems, Tangible and Embodied Interactions

Certificate of Engineering and Science Education Aug.

2018 – May 2020   Clemson University, Clemson, USA

- Selected Courses: Teaching Undergraduate Engineering and Science, Research Methods, Preparing for the Profes-soriate

Master of Science, Computer

Science Aug. 2016 – Dec. 2019   Clemson University, Clemson, USA

- Selected Courses: Applied Data Science, Data Mining, 3D Game Development

Master of Science, Computer Engineering, Computer Architecture Dec.

2012 – May 2014   Qazvin University

- Thesis Title: Design of a Serial Adder for Ternary Logic Based on Carbon Nanotube FETs
  Supervisor: Dr. Mohammad Hossein Moaiyeri
- Selected Courses: VLSI Systems, Low Power Circuit Design, Advanced Computer Architecture

Associate of Arts, Interior

Design Sep. 2013 – Nov. 2015   University of Tehran

- Selected Courses: Architectural Plans and Maquettes, Sketching, 3D Modeling

Bachelor of Science, Computer

Engineering Sep. 2006 – Dec. 2010   Tehran Azad University

- Thesis Title: Service-Oriented Architecture
  Supervisor: Dr. Abdollah Shahidi
- Selected Courses: Data Structures, Algorithms, Operating Systems, Artificial Intelligence

RESEARCH EXPERIENCE

Assistant Professor

Department of Mathematics and Computer Science 2024

– Present   Converse University, Spartanburg, SC

- Research Interests: Human-Computer Interaction, Mixed Reality, and User Research

Visiting Assistant Professor

Department of Computer Science

2023 – 2024   Florida Polytechnic University, Lakeland, FL

- Research Interests: Human-Computer Interaction, Virtual Reality, and User Research

Graduate Research Assistant Virtual
Environments lab (VE LAB) 2019 – 2023

Clemson University, Clemson, SC

(Achieved skills in Developing VR environments by Unity, Running Experiments Associated With Unity and VR Systems, Collecting Data by Observation and Interviews, and Analyz-ing Collected Data, Using HTC Vive and Oculus Quest Headsets to Run Experiments and Observations)

PROJECTS:

● Changes in Navigation Over Time: A Comparison of Teleportation and Joystick-based Locomotion

A study to discover how people's perceptions and actions in Virtual Reality change by VR experience. This study reports the results of an experiment investigating how users' behavior with teleportation and joystick-based locomotion methods changed over four weeks.

● Gait Diferences in the Real World and Virtual Reality: The Efect of Prior Virtual Reality Expe-rience

Exploring research questions such as 1) how diferent walking in a virtual environment is from walking in real space, and 2) how novice and experienced VR users experience walking in VR space. This ongoing project is a mixed study design with two factors: walking in real or virtual worlds (within-subject) and level of prior VR experience (between-subject).

● Efect of Texture on The Perception of Axis of Rotation of Pivot Doors

Investigation of the optical information available to detect the position of the axis of rotation of rectan-gular panels. In two desktop-based experiments and one immersive virtual reality-based experiment, par-ticipants indicated the location of the pivot axis of a rotating panel as quickly and accurately as possible. Factors like texture on the panel, texture on the background, the position of the axis of rotation, and lin-ear velocity of the farthest edge from the pivot axis were manipulated.

● Evaluating the Near-feld Size Perception of Tangibles in VR

To understand the efects of sensory information channels in the near feld size perception of tangibles of graspable sizes in IVEs, we conducted a between-subjects study evaluating the accuracy of size perception across three experimental conditions (Vision-only, Haptics-only, Vision, and Haptics).

● Calibration to Varying Amounts of Visual Feedback in a Basketball Shooting Task

Developing an interactive basketball shooting task in a virtual environment, where individuals will shoot virtual basketballs into a virtual basketball hoop. While engaged in this basketball shooting task, individ-uals will experience diferent levels of visual feedback regarding the accuracy of their shots.

Graduate Research Assistant

Tangible Visualization Lab (HCC-TANGVIZ LAB)

2017 – 2019   Clemson University, Clemson, SC

(Achieved skills in 3D Modeling Using 3D Max, Rhino, and Meshmixer— Prototyping and Manufacturing— 3D Printing: With Conductive and Non-Conductive Filaments, Two Dif-ferent Types of Filaments, and 3D Printing on Fabric— Laser Cutting/Engraving — Direct-ing Undergraduate Students)

PROJECT:

● MRI: Development of Enodia: a Highly Reconfgurable Instrument for Collaborative Interactive Visualization

Designing a novel collaborative visualization instrument is highly reconfgurable in several key respects. Enodia is designed for intensive research engagement with screen-mediated content, especially for collabo-ration and communication-oriented research activities.

Graduate Research Assistant

Nanotechnology and Quantum Computing Lab

2013 – 2015   Shahid Beheshti University

(Achieved skills in Circuit Design: VHDL and Verilog— Conducting Simulations: HSPICE)

PROJECTS:

- An Efcient Ternary Serial Adder Based on Carbon Nanotube FETs

Designing an efcient ternary serial adder for nanotechnology employing negative, positive, and stan-dard ternary logic. Multiple-valued logic results in chips with more density, less complexity, and high-bandwidth data transfer.

- An Efcient Analog-to-Digital Converter Based on Carbon Nanotube FETs

This study presents an efcient CNTFET-based fash analog-to-digital converter suitable for low-power, mixed-signal integrated circuits and embedded systems.

TEACHING EXPERIENCE

Assistant Professor

Department of Mathematics and Computer Science 2024

– Present   Converse University, Spartanburg, SC

- Teaching Python Programming and Web Application Design

Visiting Assistant Professor

Department of Computer Science

Aug. 2023 – Jul. 2024   Florida Polytechnic University, Lakeland, FL

- Teaching Operating Systems, Object-Oriented Programming, and Artifcial Intelligence

Graduate Teaching Assistant

School of Computing

Aug. 2016 – May 2023   Clemson University, Clemson, SC

- Problem Solving and Program Development using C++, Discrete Structures, Machine Learning, and Tangible and Embodied Interaction

Graduate Lab Assistant

School of Computing Aug.

2016 – Aug. 2019   Clemson University, Clemson, SC

- C Programming Laboratory

Writing Across Curriculum Graduate Fellow Pearce

Center for Professional Communication

Dec. 2018 – Dec. 2019   Clemson University, Clemson, SC

Lecturer

Electrical and Computer Engineering Department Sep.

2015 – Aug. 2016   Taha Institute Of Higher Education, Tehran

- C Programming, Computer Architecture, and Logical Circuits

Teacher and Adviser

Amouzesh Educative Center

Sep. 2007 – Jun. 2009   Tehran

- Teaching mathematics, advising college students, and mock exams preparation

PUBLICATIONS

- Nasiri, M, Robb, A., How do afterefects of walking in VR change by VR experience over time?, IEEE Conference on Virtual Reality and 3D User Interfaces, Submitted

- Nasiri, M, Robb, A., Porter, J., Kohm, K., 2023, Changes in Navigation Over Time: A Comparison of Teleportation and Joystick-based Locomotion. ACM Transactions on Applied Perception

- Nasiri, M, Anaraky, R.G., Babu, S.B., Robb, A., Gait Diferences in the Real World and Virtual Reality: The Efect of Prior Virtual Reality Experience. IEEE International Symposium on Mixed and Augmented Reality (ISMAR). October 17-21, 2022, Singapore

- Raveendranath, B., Pagano, C., Nasiri, M. Babu, S.B, , 2021. Efect of Texture on The Perception of Axis of Rotation of Pivot Doors. Journal of Vision, 21(9), pp.2405-2405.

- Siqueira, A.G.,Venkatakrishnan, R., Venkatakrishnan, R., Bhargava, A., Lucaites, K., Solini, H., Nasiri, M., Robb, A., Pagano, C., Ullmer, B., Babu, S.B., 2021. Empirically Evaluating the Efects of Perceptual Information Channels on Size Perception of Tangibles in Near-feld Virtual Reality. 2021 IEEE Conference on Virtual Reality and 3D User Interfaces (VR). March 27-April 3, 2021, Lisbon, Portugal

- Nasiri, M., 2021. [Doctoral Consortium] Gait Diferences in the Real World and Virtual Reality: The Efect of Prior Virtual Reality Experience. 2021 IEEE Conference on Virtual Reality and 3D User Interfaces (VR). March 27-April 3, 2021, Lisbon, Portugal

- Anaraky, R.G., Bahirat, P., Nasiri, M., Page, X., Knijnenburg, B.P. and Duchowski, A.T., 2020. Efect of Priming on Smart Home Privacy Preferences. USENIX Symposium on Usable Privacy and Security (SOUPS). August 911, 2020, Boston, MA, USA

- Nasiri, M. and Ullmer, B., 2019. The Communication Die. Graduate Research And Discovery Symposium (GRADS). Clemson, SC, USA

- Moaiyeri, M.H., Nasiri, M. and Khastoo, N., 2016. An Efcient Ternary Serial Adder Based on Carbon Nanotube FETs. Engineering Science and Technology, an International Journal, 19(1), pp.271-278.

- Moaiyeri, M.H., Khastoo, Nasiri, M., Navi, K. and Bagherzadeh, N., 2016. An Efcient Analog-to-Digital Converter Based on Carbon Nanotube FETs. Journal of Low Power Electronics, 12(2), pp.150-157.

PRESENTATIONS, CONFERENCES, AND EVENTS ATTENDED

- ACM Symposium on Applied Perception (SAP) August 2023, Los Angeles, California, Presented: Changes in Navigation Over Time: A Comparison of Teleportation and Joystick-based Locomotion.
- Graduate Teaching Institute (GTI) Workshop December 2022, Clemson, SC
- IEEE International Symposium on Mixed and Augmented Reality (ISMAR) October 2022, Singapore, Presented: Gait Diferences in the Real World and Virtual Reality: The Efect of Prior Virtual Reality Experience.
- IEEE Virtual Reality (VR) Conference March 2021, Lisbon, Portugal, DC Paper Presentation: The Efect of Prior Virtual Reality Experience on walking in IVEs
- Women Engineering (WE) 20 Annual Conference 2020, Online
- Adobe MAX The Creativity Conference 2020, Online
- Unity for Humanity Summit 2020, Online
- Virtual Grace Hopper Celebration 2020
- ACM Symposium on Applied Perception 2020 conference (SAP) 2020, Online
- ACM Richard Tapia Celebration of Diversity in Computing Conference, September 2020, Online, Pre-sented: Gait Diferences in the Real World and Virtual Reality: The Efect of Prior Virtual Reality Experience.
- IEEE Virtual Reality(VR) Conference 2020, Atlanta, GA
- Graduate Research And Discovery Symposium (GRADS) November 2018, Clemson, SC, Presented: The Communication Die.
- Southeastern Human Factors Applied Research Conference (SHARC) 2018, Clemson, SC

SKILLS

- VR Development: Unity, Rhino, SketchUp, 3D MAX
- Programming Languages: C/C++, C#, Python, R Studio, HTML, CSS, VHDL, Verilog

- Research: Qualitative and Quantitative Research, Study Design, Statistics, Technical Writing
- Technology: 3D Printing, Laser Cutting/Engraving

LEADERSHIP AND SERVICE

- Senator in the graduate student government (GSG) of Clemson University (2020-2022)
- Member of graduate travel grant (GTG) committee, responsible for funding graduate students travels at Clemson University (2020-2021)
- Certifed as a leader student, Participated and certifed in a ten-week certifed student leader program presented by Clemson University (2020)
- CZAR at VE lab to help organization and safety in the VE Group lab at School of Computing, Clemson Univer-sity (2018- 2021)
- Member of Association of Computing Machinery (ACM) (2020-2021)
- Member of Association of Computing Machinery-Women (ACM-w) (2019-2021)
- Member of Clemson International Students Organization (2017-2020)