

DORIS ELENA GUTIERREZ ROSALES

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EDUCATION

Stony Brook University, Stony Brook, NY, USA

Aug 2021 – Present

Ph.D. in Computer Science

GPA: 3.57 out of 4.00

Technological University of Panama

2020

Master's Degree in Higher Education with Specialization in Technology and Educational Didactics

GPA: 2.91 out of 3.00

Technological University of Panama

2014

Master of Science in Information Technology and Communications

GPA: 2.77 out of 3.00 **Technological University of**

Panama

2010

Bachelor in Computer and System Engineer

GPA: 2.02 out of 3.00

EXPERIENCE

Teaching Assistant, Stony Brook University

2022 - 2023, Fall 2024 - Spring 2025

- Programming Abstractions, Legal, Social, Ethical Issues in Information Systems, and Principles of Programming Languages.

Professor, Technological University of Panama

2015 - 2020

- Computer Programming I, Data Structure I, Artificial Intelligence, Formal Languages Automata and Compilers, Software Development IV, Computer Graphics Tools, Discrete Structures for Computers, Research Methodology, Digital Animation and Videogames, Analysis and Design of Algorithms, Special Topics I, Special Topics II, Graphics Systems, Logical Development and Algorithms, Numerical Methods, Formal Languages, Automata and Processors, Programming and Programming I.
- EXPO EDA (Exhibition of Learning Teaching Strategies) co-organizer.
- Design and teach seminars for training in 3D modeling and video game development.
- Update and create curricula of curses.
- Thesis Advisor.

Assistant Computer Resources Support, Technological University of Panama

2013 - 2014

- Social network manager, information resources manager, Assistant of extension coordinator and researchers.

PROJECTS

Adaptive XR Interface Framework, Stony Brook University

2025

Contributed to the development of a real-time adaptive UI framework for mixed-reality to enhance user experience through gesture-driven interface adjustments.

Silo: Half-Gigapixel Cylindrical Stereoscopic Immersive Display, Stony Brook University

2023 - 2024

Contributed to the evaluation of the Silo, an immersive cylindrical visualization facility, by designing and conducting user studies to assess its effectiveness in enhancing depth perception, object identification, and navigation in complex 3D environments.

Visualization Tool to aid network security experts, Stony Brook University

2023 - 2024

Develop a graphical user interface that helps network administrators better understand attacks, adjust defenses, and isolate and recover the affected system in real-time. **Development of a prototype for an Immersive Visual Analytics tool for**

New York City Flooding Scenarios Using Augmented Reality, Stony Brook University

2023

The goal is to help identify risk populations and their locations before flooding occurs.

Attention Analysis Based on Dynamic Event Attributes, Stony Brook University

2021- 2023

Develop a model to predict gaze location in Virtual and Augmented Reality to help develop better Immersive experiences in storytelling or scene guidance when designing 3D content.

PUBLICATIONS

Comparative Analysis of PC and MR for Enhanced Network Security. Submitted to TVCG.

Under review

Attention Analysis Based on Dynamic Event Attributes. Submitted to TVCG.

Under review

Silo: Half-Gigapixel Cylindrical Stereoscopic Immersive Display. IEEE VR.

2025

Presenter: Electronic clinical record and its importance in health institutions. 7th Ibero-American Congress of University Archives. Panamá City.

2015

Formulation of a usability test application model for an online medical appointment system: Concepts, Implementation and Evaluation of Results. International Congress of Investigation and Innovation. Cortazar Guanajuato.

2014

D2UIGP: A Development Work for the User Interface Design in Grid Portals. International Journal of Management & Information Technology,

2013

SKILLS

Languages, Tools, Frameworks: Python, Java, C++, C#, Visual Basic .NET, CSS, HTML, Javascript, D3.js,Blender Studio, 3D Studio Max.

Domain Experience: Immersive Facilities, Virtual Reality, Mixed Reality, 3D Modeling, Human Computer Interaction.