# 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 and performance benchmarking.

**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.** TVCG *Under-review*
**Attention Analysis Based on Dynamic Event Attributes.** 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, *2025*

## 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.