DORIS ELENA GUTIERREZ ROSALES

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EDUCATION

Stony Brook University, Stony Brook, NY, USA *Aug 2021 – Dec 2026*
Ph.D. in Computer Science GPA: 3.57 out of 4.00

Technological University of Panama *2017 - 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 *2011 - 2014*
Master of Science in Information Technology and Communications GPA: 2.77 out of 3.00

Technological University of Panama *2006 - 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, Spring 2026*

- 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*

Designed and implemented components of a real-time adaptive UI framework in Unity (C#) for mixed-reality systems, enabling runtime adjustment of gesture interaction parameters based on user performance signals.

Silo: Half-Gigapixel Cylindrical Stereoscopic Immersive Display, Stony Brook University *2023 - 2024*

Designed and conducted controlled user studies to evaluate a large-scale cylindrical immersive visualization facility, assessing depth perception, object identification, and navigation performance in 3D environments.

Visualization Tool to aid network security experts, Stony Brook University *2023 - 2024*

Developed an interactive visualization interface to support real-time analysis of network activity, enabling administrators to inspect attacks, adjust defenses, and isolate affected systems.

Immersive Visual Analytics for NYC Flooding (AR), Stony Brook University *2023*

Developed an AR-based immersive visual analytics prototype to support early identification of at-risk populations and spatial risk patterns in urban flooding scenarios.

Attention Analysis Based on Dynamic Event Attributes, Stony Brook University *2021 - 2023*

Developed and evaluated models to predict user gaze behavior in virtual and augmented reality environments, supporting improved immersive storytelling and scene guidance in 3D content design.

PUBLICATIONS

AdaptIQ: Failure-Aware UI Adaptation in Mixed Reality—Comparing Static, Precomputed, and Contextual Bandit Strategies. IMWUT. Under review

Task–Modality Suitability Across 2D and Mixed Reality Network Security Interfaces. IMWUT. Under review

What Draws Your Attention First? An Attention Prediction Model Based on Spatial Features in Virtual Reality. TVCG. 2025

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, Unity, Blender Studio, 3D Studio Max.

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