

## Education

- 2021–Present **Ph.D. in Computer Science**, *Texas A&M University-Corpus Christi*  
Advisor: Carlos Rubio-Medrano  
Topics: Cyber-Physical Systems Security, Satellite Security and Cyber Deception
- 2018–2020 **Master's Degree in Computer Science**, *Arizona State University*  
Advisors: Gail-Joon Ahn, Adam Doupé, and Carlos Rubio-Medrano  
Thesis: HoneyPLC: A Next-generation Honeypot for Industrial Control Systems
- 2009–2012 **Bachelor's Degree in Computer Networks**, *Universidad Autónoma de Guadalajara*  
Highest Honors

## Publications

**Efrén López-Morales**, Ulysse Planta, Carlos E. Rubio-Medrano, Ali Abbasi, Alvaro Cardenas, "SoK: Security of Programmable Logic Controllers," *In Proceedings of the 33rd USENIX Security Symposium*, Philadelphia, PA, USA, August 2024.

Bhupendra Acharya, Dario Lazzaro, Antonio Emanuele Cinà, Lea Schönherr, **Efrén López-Morales**, Muhammad Saad, Adam Oest, Thorsten Holz, "The Imitation Game: Exploring Brand Impersonation Attacks on Social Media Platforms," *In Proceedings of the 33rd USENIX Security Symposium*, Philadelphia, PA, USA, August 2024.

**Efrén López-Morales**, Carlos E. Rubio-Medrano, Adam Doupé, Yan Shoshitaishvili, Ruoyu Wang, Tiffany Bao, and Gail-Joon Ahn, "HoneyPLC: A Next-generation Honeypot for Industrial Control Systems," *In: Bao, T., Tambe, M., Wang, C. (eds) Cyber Deception. Advances in Information Security*, vol 89. Springer, Cham, October, 2022.

**Efrén López-Morales**, Carlos E. Rubio-Medrano, Adam Doupé, Yan Shoshitaishvili, Ruoyu Wang, Tiffany Bao, and Gail-Joon Ahn, "HoneyPLC: A Next-generation Honeypot for Industrial Control Systems," *In Proceedings of the 2020 ACM SIGSAC Conference on Computer and Communications Security 2020*, Online, November 2020.

## Research Experience

- Feb-May 2023 **Research Internship**, *CISPA Helmholtz Center for Information Security*, Holz Research Group  
Advisors: Ali Abbasi and Thorsten Holz
- Jul 2022 **Visiting Researcher**, *University of California Santa Cruz*, Cy-Phy Security Lab  
Advisor: Álvaro Cárdenas
- 2021–Present **Graduate Research Assistant**, *Texas A&M University-Corpus Christi*, CSRIL Security Lab  
Advisor: Carlos Rubio-Medrano
- 2019–2020 **Graduate Research Assistant**, *Arizona State University*, SEFCOM Laboratory  
Advisors: Adam Doupé, Yan Shoshitaishvili, Ruoyu Wang, Tiffany Bao, Gail-Joon Ahn and Carlos Rubio-Medrano

## Honors & Awards

- Apr 2024 **2<sup>nd</sup> Place Winner in 3MT Thesis Competition**, Texas A&M University-Corpus Christi
- Oct 2023 **Student Conferenceship**, Annual Computer Security Applications Conference (Austin, TX)
- Sep 2023 **Google Conference Scholarship**, SACNAS National Diversity in STEM Conference (Portland, OR)
- Sep 2023 **Student Travel Grant**, IEEE Secure Development Conference (Atlanta, GA)
- Aug 2022 **Conference Travel Award**, Great Minds in STEM Conference (Pasadena, CA)
- May 2022 **Student Travel Award**, 43<sup>rd</sup> IEEE Symposium on Security and Privacy (San Francisco, CA)

- Apr 2022 **1<sup>st</sup> Place Winner in 3MT Thesis Competition**, Texas A&M University-Corpus Christi
- Mar 2022 **Overleaf Advisor**, The Overleaf Advisor Programme
- Nov 2021 **iMentor Workshop Mentee**, ACM Conference on Computer and Communications Security (Online)
- Oct 2021 **1<sup>st</sup> Place in Graduate Computing Poster Competition**, Great Minds in STEM Conference
- July 2021 **Conference Diversity Grant**, USENIX Security Symposium (Online)
- May 2021 **Student Travel Award**, 42<sup>nd</sup> IEEE Symposium on Security and Privacy (Online)
- Apr 2021 **SAGE Fellowship**, Texas A&M University-Corpus Christi
- 2020 **Outstanding Mentor Award**, Arizona State University
- 2018 **Fulbright-García Robles Scholarship**, Fulbright COMEXUS

## Invited Talks and Presentations

- Apr 2024 **Design and Implementation of a Satellite Honeybot**, *Invited Talk*, 1<sup>st</sup> IoST Workshop: Building Bridges for a Global Network, University of Chile (Online)
- Apr 2024 **It's a Trap! Securing Satellites using Cyber Deception**, *3MT Thesis Competition*, Texas A&M University-Corpus Christi (Corpus Christi, TX)
- Apr 2023 **Design of a Satellite Honeybot**, *Poster Presentation at Innovation Corner*, CySat (Paris, France)
- Oct 2022 **Exploiting and Securing Programmable Logic Controllers**, *Graduate Computing Poster Competition*, GMiS Conference (Pasadena, CA)
- Apr 2022 **Exploiting and Securing Programmable Logic Controllers**, *Spring Student Research Symposium Poster Presentation*, Texas A&M University-Corpus Christi (Corpus Christi, TX)
- Apr 2022 **Overleaf Typesetting Workshop**, *Spring Student Research Symposium*, Texas A&M University-Corpus Christi (Corpus Christi, TX)
- Apr 2022 **Exploiting and Securing Programmable Logic Controllers**, *3MT Thesis Competition*, Texas A&M University-Corpus Christi (Corpus Christi, TX)
- Mar 2022 **Ciberseguridad: Habilidades y Oportunidades**, *Invited Talk*, Universidad de la Sierra Juárez (Oaxaca, Mexico)
- Mar 2022 **Exploiting and Securing Programmable Logic Controllers**, *Lightning Talks Competition*, 17<sup>th</sup> Texas A&M University System Pathways Student Research Symposium (College Station, TX)
- 2020 **HoneyPLC: A Next-generation Honeybot for Industrial Control Systems**, *In Proceedings of the 2020 ACM SIGSAC Conference on Computer and Communications Security 2020*, CCS 2020 (Online)

## Service

- Jan 2023 **Journal Reviewer**, *IEEE Transactions on Dependable and Secure Computing*

## Teaching Experience

- Fall 2023 **Senior Capstone Project Advisor (3 Students)**, *OpenDrop Honeybot*  
Texas A&M University-Corpus Christi
- Fall 2023 **Instructor of Record (16 Students)**, *COSC-4367 Firewalls and Intrusion Detection Systems*  
Texas A&M University-Corpus Christi
- Fall 2018 - **Teaching Assistant (4 Labs, 100 Students)**, *CSE110 Principles of Programming with Java*  
Spring 2019 Arizona State University

## Leadership Experience

- 2022-2023 **Mentor**, *FutureGRADS MentorSHPE Program*, Society of Hispanic Professional Engineers (SHPE) National
- 2021-Present **President**, *Geospatial Computer Science Graduate Student Organization (GSCGSO)*, Texas A&M University-Corpus Christi
- 2021-Present **Treasurer**, *Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)*, Texas A&M University-Corpus Christi
- 2019-2020 **President**, *Fulbright International Student Association*, Arizona State University

---

## Industry Experience

- 2020–2021 **Network Support Engineer**, *Cisco Meraki*, Diagnosed and troubleshooted routing and switching, wireless, security, SD-WAN and firewall Meraki products and technologies using the Meraki Dashboard, Wireshark and Knowledge Base articles
- 2016–2018 **Network Engineer**, *Telmex*, Configure and troubleshoot L3 and L2 technologies: MPLS, BGP, EIGRP, OSPF, QoS, VRFs, STP, PoE

---

## Media

- Jun 2023 **Island University computer science doctoral student Efrén López '25 is hopping the globe!**  
Featured by Texas A&M University-Corpus Christi
- Mar 2023 **Great to have you at CISPA, Efrén Lopez!**  
Featured by CISPA – Helmholtz Center for Information Security
- May 2022 **Today we want to highlight our 1st Place Award Winner Efrén Lopez-Morales!**  
Featured by Texas A&M University-Corpus Christi

---

## Languages

**Spanish:** Native  
**English:** Proficient  
**Brazilian Portuguese:** Proficient  
**German:** Elementary proficiency