# Efrén López Morales

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🌐 efrenlopez.org

## Education

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|---|---|
| 2021–Present | **Ph.D. in Geospatial Computer Science**, *Texas A&M University-Corpus Christi* |
| | Advisor: Carlos Rubio-Medrano |
| 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**, 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

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| 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 |
| | Advisor: Adam Doupé and Carlos Rubio-Medrano |

## Honors & Awards

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| Jun 2023 | **Islander Leadership Scholarship**, Texas A&M University-Corpus Christi |
| Aug 2022 | **Conference Travel Award (In-Person)**, Great Minds in STEM Conference (Pasadena, CA) |
| May 2022 | **Student Travel Award**, 43$^{rd}$ IEEE Symposium on Security and Privacy (San Francisco, CA) |
| Apr 2022 | **1$^{st}$ 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 |
| Oct 2021 | **1$^{st}$ Place in Graduate Computing Poster Competition**, Great Minds in STEM Conference |
| Apr 2021 | **SAGE Fellowship**, Texas A&M University-Corpus Christi |
| Aug 2020 | **Conference Diversity Grant (Virtual)**, USENIX Security Symposium (USENIX) |
| 2020 | **Outstanding Mentor Award**, Arizona State University |
| 2018 | **Fulbright-García Robles Scholarship**, Fulbright COMEXUS |
| 2012 | **Academic Excellence Scholarship**, Universidad Autónoma de Guadalajara |

## Talks and Presentations

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| Apr 2023 | **Design of a Satellite Honeypot**, *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 |
| Apr 2022 | **Overleaf Typesetting Workshop**, *Spring Student Research Symposium*, Texas A&M University-Corpus Christi |
| Apr 2022 | **Exploiting and Securing Programmable Logic Controllers**, *3MT Thesis Competition*, Texas A&M University-Corpus Christi |
| Mar 2022 | **Ciberseguridad: Habilidades y Oportunidades**, *Guest Speaker*, Universidad de la Sierra Juárez, Mexico |
| Mar 2022 | **Exploiting and Securing Programmable Logic Controllers**, *Lightning Talks Competition*, 17th Texas A&M University System Pathways Student Research Symposium (College Station, TX) |
| 2021 | **HoneyPLC: A Next-generation Honeypot for Industrial Control Systems**, *Graduate Computing Poster Competition*, GMiS Conference |
| 2020 | **HoneyPLC: A Next-generation Honeypot for Industrial Control Systems**, *In Proceedings of the 2020 ACM SIGSAC Conference on Computer and Communications Security 2020*, CCS 2020 |

## Service

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

## Teaching Experience

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

## Leadership Experience

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| 2022-Present | **Mentor**, *Future GRADS 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

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| 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 |
| 2014–2016 | **Systems Engineer**, *Tata Consultancy Services*, Troubleshooted networking, Windows Server and Active Directory technologies |
| 2013 | **Systems Engineer**, *Universidad Autónoma de Guadalajara*, Performed as Webmaster and administrator of DNS and Web servers |
| 2012 | **Junior Network Engineer**, *Pemex*, Configured Cisco, Nortel, Extreme enterprise switches and routers |

## Languages

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

## References

**Carlos Rubio-Medrano**
Department of Computing Sciences
College of Science and Engineering
Texas A&M University-Corpus Christi
Corpus Christi, TX
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