NSF BIOGRAPHICAL SKETCH

Provide the following information for the Senior personnel. Follow this format for each person. **DO NOT EXCEED 3 PAGES.**

IDENTIFYING INFORMATION:

NAME: Rubio Medrano, Carlos, Ernesto

NSF ID: 000781009@nsf.gov ORCID: 0000-0001-8931-6412

POSITION TITLE: Assistant Professor

<u>ORGANIZATION AND LOCATION</u>: Texas A&M University - Corpus Christi, Corpus Christi, TX, USA

Professional Preparation:

*			
ORGANIZATION AND LOCATION	DEGREE (if applicable)	DATE RECEIVED	FIELD OF STUDY
Arizona State University, Tempe, Arizona, USA	PHD	12/2016	Computer Science
The University of Texas at El Paso, El Paso, TX, USA	MS	05/2008	Computer Science
Instituto Tecnologico de Chihuahua II, Chihuahua, Chihuahua, Mexico	BENG	05/2005	Computer Science

Appointments and Positions

2020 - present Assistant Professor, Texas A&M University - Corpus Christi, Corpus Christi, TX, USA

2017 - 2020 Postdoctoral Researcher, Arizona State University, Tempe, AZ, USA

2012 - 2016 Research/Teaching Assistant, Arizona State University, Tempe, AZ, USA

Products

Products Most Closely Related to the Proposed Project

- Rubio-Medrano C, Zhao Z, Doupe A, Ahn G. Federated Access Management for Collaborative Network Environments. Proceedings of the 20th ACM Symposium on Access Control Models and Technologies. SACMAT '15: 20th ACM Symposium on Access Control Models and Technologies; 01 0 15; Vienna Austria. New York, NY, USA: ACM; c2015. Available from: https://dl.acm.org/doi/10.1145/2752952.2752977 DOI: 10.1145/2752952.2752977
- López-Morales E, Rubio-Medrano C, Doupé A, Shoshitaishvili Y, Wang R, Bao T, Ahn G. HoneyPLC: A Next-Generation Honeypot for Industrial Control Systems. Proceedings of the 2020 ACM SIGSAC Conference on Computer and Communications Security. CCS '20: 2020 ACM SIGSAC Conference on Computer and Communications Security; 09 1 20; Virtual Event USA. New York, NY, USA: ACM; c2020. Available from: https://dl.acm.org/doi/10.1145/3372297.3423356

- 3. Soneji A, Kokulu F, Rubio-Medrano C, Bao T, Wang R, Shoshitaishvili Y, Doupe A. "Flawed, but like democracy we don't have a better system": The Experts' Insights on the Peer Review Process of Evaluating Security Papers. 2022 IEEE Symposium on Security and Privacy (SP). 2022 IEEE Symposium on Security and Privacy (SP); ; San Francisco, CA, USA. IEEE; c2022. Available from: https://ieeexplore.ieee.org/document/9833581/ DOI: 10.1109/SP46214.2022.9833581
- 4. Rubio-Medrano C, Jogani S, Leitner M, Zhao Z, Ahn G. Effectively Enforcing Authorization Constraints for Emerging Space-Sensitive Technologies. Proceedings of the 24th ACM Symposium on Access Control Models and Technologies. SACMAT '19: The 24th ACM Symposium on Access Control Models and Technologies; 03 0 19; Toronto ON Canada. New York, NY, USA: ACM; c2019. Available from: https://dl.acm.org/doi/10.1145/3322431.3325109 DOI: 10.1145/3322431.3325109
- Zhibo Sun, Adam Oest, Penghui Zhang, Carlos Rubio-Medrano, Tiffany Bao, Ruoyu Wang, Ziming Zhao, Yan Shoshitaishvili, Adam Doupé, Gail-Joon Ahn. Having Your Cake and Eating It: An Analysis of Concession-Abuse-as-a-Service. 30th USENIX Security Symposium (USENIX Security 21); 2021; USENIX Association; c2021. Available from: https://www.usenix.org/conference/usenixsecurity21/presentation/sun-zhibo isbn: 978-1-939133-24-3

Other Significant Products, Whether or Not Related to the Proposed Project

- Rubio-Medrano C, Soundrapandian P, Hill M, Claramunt L, Baek J, S G, Ahn G. DyPolDroid: Protecting Against Permission-Abuse Attacks in Android. Information Systems Frontiers. 2022 October 11; :-. Available from: https://link.springer.com/10.1007/s10796-022-10328-8 DOI: 10.1007/s10796-022-10328-8
- Rubio-Medrano C, Lamp J, Taguinod M, Doupe A, Zhao Z, Ahn G. Position Paper. Proceedings of the 2016 ACM International Workshop on Attribute Based Access Control. CODASPY'16: Sixth ACM Conference on Data and Application Security and Privacy; 11 0 16; New Orleans Louisiana USA. New York, NY, USA: ACM; c2016. Available from: https://dl.acm.org/doi/10.1145/2875491.2875499 DOI: 10.1145/2875491.2875499
- 3. Berger B, Maeder C, Wete Nguempnang R, Sohr K, Rubio-Medrano C. Towards Effective Verification of Multi-Model Access Control Properties. Proceedings of the 24th ACM Symposium on Access Control Models and Technologies. SACMAT '19: The 24th ACM Symposium on Access Control Models and Technologies; 03 0 19; Toronto ON Canada. New York, NY, USA: ACM; c2019. Available from: https://dl.acm.org/doi/10.1145/3322431.3325105 DOI: 10.1145/3322431.3325105
- 4. Rubio-Medrano C, Claramunt L, Jogani S, Ahn G. Proactive Risk Assessment for Preventing Attribute-Forgery Attacks to ABAC Policies. Proceedings of the 25th ACM Symposium on Access Control Models and Technologies. SACMAT '20: The 25th ACM Symposium on Access Control Models and Technologies; 10 0 20; Barcelona Spain. New York, NY, USA: ACM; c2020. Available from: https://dl.acm.org/doi/10.1145/3381991.3395615 DOI: 10.1145/3381991.3395615
- 5. Lamp J, Rubio-Medrano C, Zhao Z, Ahn G. *ExSol*. Digital Threats: Research and Practice. 2021 June 08; 2(3):1-23. Available from: https://dl.acm.org/doi/10.1145/3428156 DOI:

10.1145/3428156

Synergistic Activities

- 1. Member of the Organizing Committee of the CAHSI South Texas Hackathon 2022, hosted by the Computing Alliance of Hispanic Serving Institutions, Texas A&M University-Corpus Christi, University of Houston Downtown, University of Texas Rio Grande Valley. October 2022.
- 2. Research Mentor for the NSF-funded Research Experiences for Undergraduates (REU) program hosted at Texas A&M University Corpus Christi during the Summer of 2022. Currently advising undergraduate students on a research project focused on cybersecurity protections for drone flyovers in the context of sensitive physical spaces, e.g., hospitals, museums, schools, etc.

Certification:

When the individual signs the certification on behalf of themselves, they are certifying that the information is current, accurate, and complete. This includes, but is not limited to, information related to domestic and foreign appointments and positions. Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802.

Certified by Rubio Medrano, Carlos, Ernesto in SciENcv on 2023-04-05 18:21:34