
JEREMY BLACKSTONE

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Assistant Professor at Howard University

Education

- 8/2015 - 6/2021 PhD in Computer Science and Engineering - University of California, San Diego
Awards: **Bouchet Graduate Honor Society**, Intel GEM fellowship, Alfred. P Sloan fellowship, UC-HBCU Initiative
- 9/2014 - 5/2015 M.S. in Systems and Computer Science - Howard University
- 9/2010 - 5/2014 B.S. in Systems and Computer Science - Howard University
Awards: **GENIUS DHS Research Scholarship**, Tau Beta Pi Engineering Honor Society, Upsilon Pi Epsilon International Honor Society for the Computing and Information Disciplines

Skills

Computer Languages: **C++**, Python, Java, Matlab, HTML/Javascript, SQL
Tools: SimAVR, Eclipse, Github, Visual Studio, Xilinx Vivado HLS and Qsys

Research Experience

- 8/2015 - 6/2021 Graduate Student Researcher - University of California, San Diego
-Developed optimal algorithms to identify the times to apply a side channel mitigation strategy in Matlab under area, performance and power constraints
-Simulated differential/biased fault analysis attacks with programs written in C++
-Simulated information flow tracking with scripts written in Python
-Gave multiple presentations on fault analysis attacks to security experts and non-experts
- 8/2014 - 5/2015 Graduate Student Researcher - Howard University
-Identified tools and techniques used to perform and defend against distributed denial of service attacks(DDoS)
-Developed a model for analyzing DDoS attack scenarios
- 6/2010 - 8/2010 GEAR UP Researcher-Universidad Santo Tomas
-Analyzed web traffic graphs to identify potential DDoS attacks
-Helped develop model to identify countries at high risk for DDoS attacks

Industry Experience

- 8/2018 - 9/2018 Graduate Student Intern - Intel
-Developed Java class which collects information about events using Test Driven Development(TDD)
-Aggregated event information into records and sent them to an ElasticSearch database

Publications

Blackstone, J. and Patterson, W. "Isolating key phrases to identify ransomware attackers" *International Conference on Applied Human Factors and Ergonomics*. (Accepted)

Patterson, W. and **Blackstone, J.** "A metric to assist in detecting international phishing or ransomware cyberattacks" *International Conference on Applied Human Factors and Ergonomics*. (Accepted)

Blackstone, J., Das, D., Althoff, A., Sen, S., & Kastner, R., 2021, November. **iSTELLAR: intermittent Signature aTtenuation Embedded CRYPTO with Low-Level metaI Routing**. In *2021 IEEE/ACM International Conference On Computer Aided Design (ICCAD)* (pp. 1-9). IEEE.

Blackstone, J., 2021. **Using Blinking to Mitigate Passive Side Channel Attacks and Fault Attacks** (Doctoral Dissertation, PhD University of California, San Diego)

Zhang, L., Hu, W., Ardeshiricham, A., Tai, Y., **Blackstone, J.**, Mu, D. and Kastner, R., 2018, March. **Examining the consequences of high-level synthesis optimizations on power side-channel**. In *2018 Design, Automation & Test in Europe Conference & Exhibition (DATE)* (pp. 1167-1170). IEEE.

Hu, W., Zhang, L., Ardeshiricham, A., **Blackstone, J.**, Hou, B., Tai, Y. and Kastner, R., 2017, November. **Why you should care about don't cares: Exploiting internal don't care conditions for hardware Trojans**. In *2017 IEEE/ACM International Conference on Computer-Aided Design (ICCAD)* (pp. 707-713). IEEE.

Blackstone, J., 2015. **The Feasibility of Anonymous Shutting Down Amazon** (Master's Thesis, Howard University)

Banks, K.B., **Blackstone, J.M.**, Perry, S.S., Patterson, W., des Valle, P.G., Mujica, S., Aedo, C.M., Sanchez, A.M., Andrade, J.P.M. and Stuardo, J.A.R., 2012, March. **DDoS and other anomalous web traffic behavior in selected countries**. In *Southeastcon, 2012 Proceedings of IEEE* (pp. 1-5). IEEE.