Bashayer Alharbi

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Education

University of Colorado Boulder   *Boulder, CO*
Ph.D. in Computer Science   *Jan 2023*
General interest in network security. Advised by Dr. Eric Keller.

University of Colorado Boulder   *Boulder, CO*
M.S. in Technology, Cybersecurity, and Policy - GPA:4.00   *Jan 2021 - Dec 2022*
- **Courses:** Security & Ethical Hacking, Security Audits & Penetration Testing, Software Reverse Engineering, Cybersecurity Network Analytics, Digital Forensics, Embedded Cybersecurity, Advanced Network Systems.

King Abdulaziz University   *Jeddah, Saudi Arabia*
B.S. in Information Technology - GPA:4.74/5.00   *Aug 2013 - May 2018*

Work Experience

University of Colorado Boulder   *Boulder, CO*
Graduate Researcher   *Jan 2023*

Jeddah Municipality   *Jeddah, Saudi Arabia*
Web Developer - Internship   *Jul 2017 - Aug 2017*
- Web development using ASP.NET, HTML5, JavaScript, and design user interface (UI).

Skills

Programming   Python, Java, C#, C, Shell Scripting (Bash), SQL, Intel and AT&T Assembly
Technical Skills   Linux, Metasploit, Linux, kali Linux, Docker, BIRD Routing, Wireshark, Tcpdump, GraphQL, LaTeX, ASP.Net, Git.

Research Projects

Cloud Optimizing for Cost Effective Services   *Boulder, CO*
University of Colorado Boulder   *Jan 2023*
- Utilized IBM Object Storage Traces to simulate multi-tenant experiments to test cost-effectiveness of resource sharing strategies.

Improving Border Gateway Router BGP Security   *Boulder, CO*
University of Colorado Boulder   *Oct 2022*
- Investigating ways to enhance the resilience and scalability of BGP by analyzing its current design limitations.

5G Hidden Operations through Securing Traffic (GHOST)   *Boulder, CO*
University of Colorado Boulder   *Sep 2022*
- Utilizing Trusted Execution Environments to secure end-user devices and non-indigenous networking equipment over 5G from potential compromise.

Smart Contract Border Gateway Protocol BGP infrastructure   *Boulder, CO*
University of Colorado Boulder   *Jun 2022*
- Extended the SEED Internet Emulator Framework to evaluate partial deployment of RPKI and other routing protocols.
- Utilized the extended framework to evaluate the effectiveness of RPKI and introduced metrics for measuring the effectiveness of a given scenario.

Analyzing Real Traffic to Detect Similar Behaving IP Addresses   *Boulder, CO*
University of Colorado Boulder   *Mar - Apr 2022*
- Developed a machine learning based approach to classify IP behavior and identify patterns and similarities between IP addresses using real network traffic, which could be used to detect botnets.

Publication

Enabling Security Research through Efficient Partial Deployment Topology Configuration and Validation   *New York City, NY*
Bashayer Alharbi, Karl Olson, Eric Keller   *May 2023*
- In Proceedings of the IEEE INFOCOM Workshop on Computer and Networking Experimental Research using Testbeds (CNERT)

Honors and Contributions

University of Colorado Boulder   *Boulder, CO*
Accenture/Butterfield Graduate Fellow Award from the Technology, Cybersecurity, and Policy program.   *Aug 2021*
Zayed University   *Dubai, United Arab Emirates*
Presented a poster in the Tenth Annual Conference for Undergraduate Research on Applied Computing   *Apr 2018*
King Abdullah University of Science and Technology (KAUST)   *Thuwal, Saudi Arabia*
Presented a poster in Winter Enrichment Program Undergraduate Poster Competition   *Jan 2018*