Kelsey Fulton, Ph.D.

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Employment History

2023 – Present **Assistant Professor.** Department of Computer Science. Colorado School of Mines.

Education

2017 – 2023 **Ph.D. Computer Science, University of Maryland**
Thesis title: *Understanding and Improving Secure Development from a Human-Centered Perspective*

2017 – 2019 **M.Sc. Computer Science, University of Maryland**

2013 – 2017 **B.Sc. Computer Science and Mathematics, Millersville University of Pennsylnvania**

Peer-Reviewed Publications

Conference Proceedings

1. Y. Zhao, W. Guo, H. Goldstein, D. Votipka, **K. R. Fulton**, and M. L. Mazurek, "A Qualitative Analysis of Fuzzer Usability and Challenges," in *ACM SIGSAC Conference on Computer and Communications Security*, 2025.
2. **K. R. Fulton**, J. Lewis, N. Malkin, and M. L. Mazurek, "Write, Read, or Fix? Exploring Alternative Methods for Secure Development Studies," in *Symposium on Usable Privacy and Security*, 2024. URL: https://www.usenix.org/conference/soups2024/presentation/fulton.
3. S. Katcher, L. Wang, C. Yang, *et al.*, "A Survey of Cybersecurity Professionals' Perceptions and Experiences of Safety and Belonging in the Community," in *Symposium on Usable Privacy and Security*, 2024. URL: https://www.usenix.org/conference/soups2024/presentation/katcher.
4. **K. R. Fulton**, S. Katcher, K. Song, *et al.*, "Vulnerability Discovery for All: Experiences of Marginalization in Vulnerability Discovery," in *IEEE Symposium on Security and Privacy*, 2023. URL: https://doi.ieeecomputersociety.org/10.1109/SP46215.2023.10179478.
5. **K. R. Fulton**, D. Votipka, D. Abrokwa, M. L. Mazurek, M. Hicks, and J. Parker, "Understanding the How and the Why: Exploring Secure Development Practices through a Course Competition," in *ACM SIGSAC Conference on Computer and Communications Security*, 2022. URL: https://dl.acm.org/doi/abs/10.1145/3548606.3560569.
6. **K. R. Fulton**, A. Chan, D. Votipka, M. Hicks, and M. L. Mazurek, "Benefits and Drawbacks of Adopting a Secure Programming Language: Rust as a Case Study," in *Symposium on Usable Privacy and Security*, 2021. URL: https://www.usenix.org/conference/soups2021/presentation/fulton.
7. D. Votipka, **K. R. Fulton**, J. Parker, M. Hou, M. L. Mazurek, and M. Hicks, "Understanding security mistakes developers make: Qualitative analysis from Build It, Break It, Fix It," in *USENIX Security Symposium*, 2020. URL: https://www.usenix.org/conference/usenixsecurity20/presentation/votipka-understanding, **Distinguished paper award winner**.

8. **K. R. Fulton**, R. Gelles, A. McKay, Y. Abdi, R. Roberts, and M. L. Mazurek, "The Effect of Entertainment Media on Mental Models of Computer Security," in *Symposium on Usable Privacy and Security*, 2019. URL: https://www.usenix.org/conference/soups2019/presentation/fulton.

Journals

1. J. Parker, M. Hicks, A. Ruef, *et al.*, "Build It, Break It, Fix It: Contesting Secure Development," *ACM Transactions on Privacy and Security*, vol. 23, no. 2, pp. 1–36, 2020. URL: https://dl.acm.org/doi/abs/10.1145/3383773.

Peer-Reviewed Workshops and Posters

1. Y. Zhao, W. Guo, H. Goldstein, D. Votipka, **K. R. Fulton**, and M. L. Mazurek, *A Qualitative Analysis of Fuzzer Usability and Challenges*, 2025. URL: https://www.usenix.org/conference/soups2025/presentation/zhao-poster.
2. J. Lewis and **K. R. Fulton**, *NERDS: A Non-invasive Environment for Remote Developer Studies*, 2024. URL: https://dl.acm.org/doi/10.1145/3675741.3675750.
3. **K. R. Fulton**, S. Katcher, K. Song, *et al.*, *Vulnerability Discovery for All: Experiences of Marginalization in Vulnerability Discovery*, 2022. URL: https://www.usenix.org/conference/soups2022/presentation/fulton-poster.
4. **K. R. Fulton**, D. Votipka, D. Abrokwa, M. L. Mazurek, M. Hicks, and J. Parker, *Understanding the How and the Why: Exploring Secure Development Practices through a Course Competition*, 2022. URL: https://www.usenix.org/conference/soups2022/presentation/fulton-poster-0.
5. **K. R. Fulton**, Y. Abdi, C. Neidhart, M. L. Mazurek, and M. Hicks, *Studying the Costs and Benefits of Rust, Compared to C*, 2019. URL: https://wsiw2019.sec.uni-hannover.de/downloads/Studying%20the%20Cost%20and%20Benefits%20of%20Rust%20Compared%20to%20C.pdf.
6. R. Gelles, **K. R. Fulton**, R. Walter, and D. Levin, *Detecting IoT Malware with Power Measurements*, 2018.

Awards and Honors

2024 **Distinguished Reviewer Award**, USENIX Security
2023 **Noteworthy Reviewer Award**, USENIX Security
John Karat Usable Security and Privacy Student Research Award
2020 **Distinguished Paper Award**, USENIX Security
2016 **Student of Academic Distinction**, Millersville University of Pennsylvania

Service

Organizing Committee

2025 **Workshops Co-Chair**, Symposium on Usable Privacy and Security (SOUPS)
2024 **Workshops Co-Chair**, Symposium on Usable Privacy and Security (SOUPS)
2023 **Workshops Junior Co-Chair**, Symposium on Usable Privacy and Security (SOUPS)
2022 **Posters Junior Co-Chair**, Symposium on Usable Privacy and Security (SOUPS)

Program Committee

2026 USENIX Security
IEEE Security & Privacy

Service (continued)

- 2025 IEEE ConPro
- USENIX Security
- IEEE Security & Privacy
- 2024 USENIX Security
- IEEE Security & Privacy
- IEEE ConPro
- 2023 USENIX Security
- NDSS
- 2022 ACM CCS
- IEEE ConPro
- 2021 ACM CCS
- IEEE ConPro

External Reviews

- 2025 ACM CHI
- 2024 ACM CHI
- ACM CSCW
- 2023 ACM CHI
- 2022 PoPETS
- 2021 ACM CHI
- ACM TOPS
- HFES
- 2020 COSE
- ACM CHI Late Breaking Works

Research Mentoring

Graduate

- 2025 – Present **Kelly Fisher**
  PhD Computer Science, Colorado School of Mines
- **Jake Hoekstra**
  PhD Computer Science, Colorado School of Mines
- 2024 – Present **Jack Kingham**
  PhD Computer Science, Colorado School of Mines
- **Katy Limes**
  PhD Computer Science, Colorado School of Mines

Undergraduate

- Spring 2025 – Fall 2025 **Caroline Schreier**
  B.Sc. Computer science, Colorado School of Mines
- Fall 2024 – Spring 2025 **Brinda Malik**
  B.Sc. Computer science, Colorado School of Mines

Research Mentoring (continued)

Spring 2024 – Spring 2025 — **Morgan Steele**
B.Sc. Computer science, Colorado School of Mines

Spring 2024 – Fall 2024 — **Christine Worley**
B.Sc. Mathematics, Colorado School of Mines

Fall 2023 – Summer 2024 — **Max Ketter**
B.Sc. Computer science, Colorado School of Mines

2021 – 2024 — **Joe Lewis**
B.Sc. Computer science, University of Maryland

High School

Summer 2024 – Summer 2025 — **Riley Herchert**
Silver Creek High School