

Vulnerability Discovery for All: Experiences of Marginalization in Vulnerability Discovery

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Secure Partners

**DO YOU FEEL LIKE YOU BELONG
WITHIN SECURITY?**

The cybersecurity industry is short 3.4 million workers—that's good news for cyber wages

BY SYDNEY LAKE

October 20, 2022, 9:01 AM

Female

Male

Minority

Why does this matter?

- Equity problem
 - Limited opportunities for lucrative careers
- “Given enough eyes, all bugs are shallow.”
 - Diverse perspectives needed to avoid blindspots
 - Homogenous community leads to similar perspectives



Research questions

- How do people from marginalized populations come to **participate** in vulnerability discovery?
- Do people from marginalized populations feel **accepted** and **supported**?
- What **challenges** do people from marginalized populations face?

Methods

- Conducted 16 semi-structured interviews
 - Self-described work and personal identity
 - Walk us through their career in vulnerability discovery
- Analyzed data using open coding

Research questions

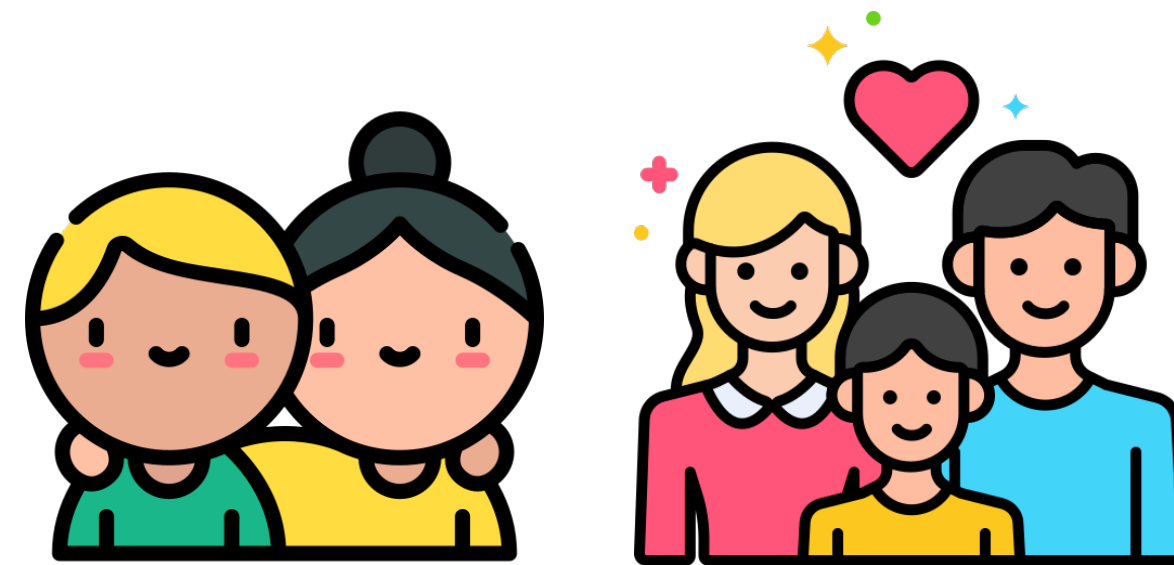
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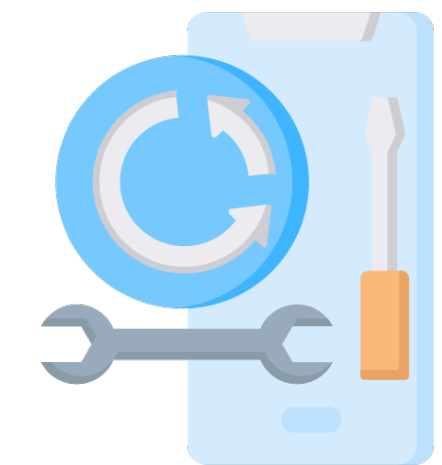
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Path to Vulnerability Discovery

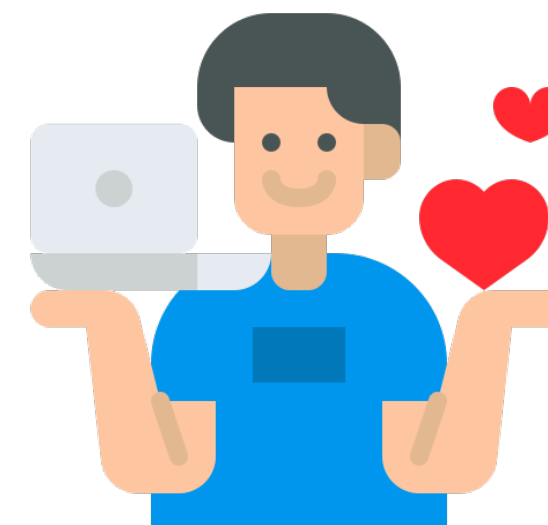
- Others introduced them



- Tangential activities lead to vulnerability discovery

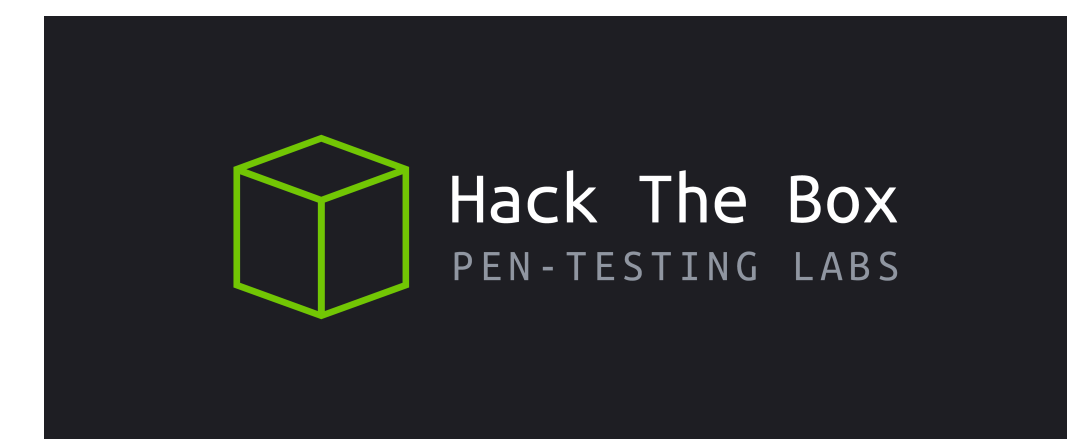


- Drawn to specific aspect



Learning Resources

- Resources with built-in structure
 - Hacking challenges, Certifications, Online courses
- Unstructured resources
 - On the job learning, YouTube videos, Hacking sites



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Mentoring

- Mentor ***More than in other fields.**

- Mento

Increase in **self-efficacy, activity, and expectations** after meeting first good **mentor.**

- Har

- Cor

development
ough mentors

- Sharing relevant resources

manageable/useful amount

Representation and diversity

- Perce
 - Gener
- “I did **feel welcome**... because my class was very **diverse**”

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Challenges

- Education
 - Materials lack clear structure
 - Materials assume technical background
- Competitive landscape
 - Lack of attainable entry positions
 - Outcome uncertainty

Community

Compounds other

ies

- Difficulty being taken seriously

- Lack of

- Unhelpful
“I could tell they weren't taking me seriously... they saw me and were like, '**What's she trying to do here?**'”

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- “To

- C

- Discrimination

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Takeaways

- Mentors were essential
- Help mentees reach willing mentors
 - Mentor/mentee matching programs
 - Open office hours
 - Anonymous mentoring

Questions:
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