

DAKSH KHURANA

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SUMMARY

Penetration tester and security researcher with over 4 years of experience in offensive security, vulnerability assessment, cloud infrastructure, and AI-driven threat analysis. Skilled in big data analytics, Python automation, cloud platforms, and integrating large language models into security workflows. Passionate about enhancing threat detection and intelligence, seeking opportunities to apply technical expertise in Big Data and Cybersecurity.

TECHNICAL SKILLS

Programming Languages:

Python, Java, C, C++, JavaScript, TypeScript, ReactJS, Node.js, Flutter, Solidity, SQL, NoSQL, HTML, Bash Scripting

Cybersecurity:

Penetration Testing & Vulnerability Assessment: Web, Mobile, API, GraphQL, Thick Client, Mobile Application Pentesting, Web Application Security, Vulnerability Management

Network & Cloud Security: AWS, GCP, DigitalOcean (EC2, VPC, S3, RDS, IAM, CloudWatch, CloudTrail, ELB/Autoscaling, Route53, SNS/SQS, EBS, CDN), Network Security, Endpoint Security, Active Directory, Radio Hacking

Reverse Engineering & Hardware/Firmware Security: Firmware Testing, Hardware Security, Binwalk, ARM & x86 Assembly, Binary Exploitation, UART, I2C, SPI, JTAG

IoT & Embedded Security: IoT Security, MQTT, CANbus, GNURadio, Modbus

Tools & Platforms: Burp Suite, Metasploit, Maltego, Sqlmap, Splunk, Wireshark

AI and Machine Learning:

TensorFlow, PyTorch, Langchain, OpenAI, LLMs

OTHER SKILLS

Languages: English (Proficient), Hindi (Native), German (Intermediate)

Interpersonal: Organization, Leadership, Collaboration, Creativity, Innovation, Communication

EXPERIENCE

Penetration Tester, Bright Security, San Rafael, California, USA

Jul. 2024 – Aug. 2025

- Conducted comprehensive Vulnerability Assessment and Penetration Testing (VAPT) across client and internal applications, including web, mobile, cloud, and thick client platforms.
- Conducted internal security testing and audited cloud infrastructure to identify and remediate misconfigurations, risks, and vulnerabilities, enhancing overall security posture.
- Actively contributed to internal security research and tool development, enhancing the efficiency and effectiveness of in-house security solutions.
- Effectively communicated technical findings to technical and non-technical stakeholders, improving reporting quality, onboarding new clients, and strengthening relationships with existing ones.

Security Researcher (Freelance), Bugcrowd, UK

Mar. 2022 – Aug. 2025

- Actively participated in bug bounty programs, showcasing expertise in identifying and responsibly disclosing vulnerabilities.
- Conducted ongoing research and testing, contributing to the improvement of security measures across diverse platforms.
- Strengthened technical skills and deepened understanding of cybersecurity through hands-on engagement in ethical hacking practices.

Core Team Member, AutoSecurityy, India

Mar. 2024 – Aug. 2025

- Conducted in-depth research on emerging automobile security threats and industry trends to inform strategic initiatives and content creation.
- Created targeted educational content- including articles, videos, and infographics- aimed at raising cybersecurity awareness among consumers and automotive professionals.
- Organized and facilitated industry events such as workshops and webinars to promote knowledge sharing and collaboration within the automotive security community.
- Engaged actively with the community through forums and social media, significantly increasing user participation and expanding monthly reach over the course of one year.

Cloud Security Engineer (Intern), Virtually Testing Foundation, California, USA

Nov. 2023 – Jan. 2024

- Utilized AWS CloudTrail, CloudWatch, AWS Cognito, Azure Active Directory, and Microsoft Sentinel to secure cloud infrastructures.
- Participated in practical labs, gaining hands-on experience in threat detection and mitigation while developing strong soft skills through effective communication and collaboration within a dynamic team environment.

CERTIFICATIONS/LICENSES

Certified Red Team Expert (CRTE) **Sep. 2025**

AWS Certified Security Specialty **Jan. 2024**

Supervised Machine Learning with Scikit-Learn (Datacamp), **Apr. 2025**

Microsoft Azure Security Technologies (AZ-500) **Jan. 2024**

Web Application Penetration Tester Extreme (EWPTXV2) **Oct. 2024**

Microsoft Security Compliance and Identity Fundamentals (SC-900) **Jan. 2024**

Certified Cloud Security Practitioner–AWS (CCSP-AWS) **Jun. 2024**

210W-05 ICS Cybersecurity Risk **Sep. 2023**
Network Essentials (CISCO) **Apr. 2023**

Certifications/Licenses, continue

Certified Ethical Hacker V12 (Practical) **Mar. 2023**
ISEA Certified Cyber Hygiene Practitioner **Feb. 2023**
Certified AppSec Practitioner **Feb. 2023**
edX: Programming for Everybody (Getting Started with Python) **Feb. 2023**

Automation Scripts Using Bash (Coursera) **Sep. 2022**
Hardware Security (Coursera) **Sep. 2022**

EDUCATION

Dual program with Caucasus University and Fairleigh Dickinson University

Fairleigh Dickinson University, Metropolitan Campus, Teaneck, NJ, USA

Bachelor of Science in Computer Science

Anticipated May 2026

Caucasus University, Tbilisi, Georgia

Bachelor of Science in Computer Science

Anticipated May 2026

Relevant Coursework: Big Data Analytics, Advanced Databases, Digital System Design, Assembly language

ACADEMIC PROJECTS

A Meta-Analysis on Early Detection of Skin Cancer using Graph Neural Networks.

Conducting a literature review and developing a GNN model to classify skin disease images. Supervised by Professor Dr. Avimanyu Vatsa. Work in progress; intended for publication in a peer-reviewed conference or journal.

Fall 2025 Semester

Comparative Security Evaluation of Human-Developed and LLM-Generated Applications

Working on an independent study under the guidance of Professor Dr. Yaoqing Liu, focused on building a functionally equivalent application using two approaches: one developed by a human programmer, the other generated by a large language model (LLM). Both versions will undergo comprehensive security evaluations through manual review and automated testing. The project will analyze vulnerabilities and coding practices, culminating in a research paper comparing the strengths and weaknesses of human- and AI-generated code in real-world contexts.

Fall 2025 Semester

PROFESSIONAL ORGANIZATIONS / MEMBERSHIPS

Leader, Global Scholars, Fairleigh Dickinson University

Fall 2025 - Present

Member, IEEE

Jul. 2025 - Present

Member, Car Hackers Space

Oct. 2025 - Present

Member, AutoSecurityy

Mar. 2024 - Aug. 2025

ACHIEVEMENTS

Hackathons

Top 5: BTU Hackathon - Tbilisi, Georgia

Jun. 2024

Top 10: KRMU Hacks 2.0 - KR Mangalam University

Feb. 2023

Top 10 (Finalist): Ideathon - AICTE

Feb. 2023

1st Position: Smart Punjab Hackathon - Thapar Institute of Engineering & Technology, India

Nov. 2022

2nd Position: Technovation - Panipat Institute of Engineering & Technology, India

Dec. 2022

2nd Position: Agritech Hackathon – <https://agritechhackathon.ca/>

Nov. 2020

Hall of Fames & Security Acknowledgments

Acknowledged by 40+ industry giants like EC-Council, Dell Technologies, Pinterest, Pizza Hut, Wageningen University & Research, and many more for expertly finding and responsibly reporting vulnerabilities

[Wageningen University Hall of Fame](#)

[EC-Council Bug Bounty Hall of Fame](#)

[Pizza Hut Acknowledgments](#)

PERSONAL PROJECTS

Application Developer

BTU Hackathon - Embedded Security with AI using StreamLit

Jun. 2024

Developed a sophisticated application leveraging AI to process and analyze FCCID information and datasheets.

Utilized Python libraries and frameworks, including Streamlit, BeautifulSoup, PyPDF2, and YOLO for object detection.

Key features include FCCID information scraping, PDF processing, object detection, conversational AI integration, and report generation.

Link: <https://github.com/h16htb0t/EmbeddedAI>

Teen Sage

Dec. 2022

Developed an application focused on adolescent mental health and sex education.

Used technologies like Flutter, Google Cloud Platform (GCP), Firebase, and Cloud Firestore.

Link: <https://github.com/1n1t6Sh3ll/TeenSage/>