



U.S. Cybersecurity Job Posting Data Report

January 2023 – December 2023

Source: CyberSN, 2024



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..... Data Collection Approach

Data Collection Period: The dataset encompasses all cybersecurity job postings across the United States from January 2023 to December 2023.

Data Sources: Data was sourced from over 30 major job boards as well as websites of Fortune 500 companies.

Changes in Data Accumulation: Initially, job postings were tracked with a 45-day job posting lifecycle. Starting in July 2023, this period was adjusted to a 30-day lifecycle to reflect more current hiring trends.

Inclusion Criteria: The dataset includes both Recruiting Agency job posts and Direct Employer job posts to provide a comprehensive overview of the market.

Data Cleaning: Duplicate job postings were identified and removed to ensure the accuracy of job vacancy counts.

Data Variability and Churn: Job posting dynamics such as posts that were added on Monday and removed by Saturday, followed by a new post on Sunday, were recorded as separate job entries. This churn effect is crucial for understanding job market fluidity and may affect the overall data interpretation.

Top Categories per Cybersecurity Job Postings

Defense

173,306

Product Security

50,626

Management

34,114

GRC

33,692

Planning

27,461

Offense

19,457

Response

12,879

Education

5,619

Research

5,259

January 2023 - December 2023

Source: CyberSN, 2024

Please Note*: Starting July 2023 data accumulation changed from 45 days to 30 days job posting life cycle.

Top 25 Cybersecurity Roles Posted in 2023

CATEGORY	FUNCTIONAL ROLE	TOTAL JOB POSTINGS	% CHANGE FROM 2022
Defense	Security Engineer	67,456	-21.29%
Defense	Security Analyst	52,579	14.35%
Product Security	DevSecOps	39,052	-43.07%
Planning	Security Architect	23,186	-24.75%
Management	Cybersecurity Manager	17,985	-16.09%
Defense	Identity and Access Management Engineer	16,640	10.82%
GRC	Cybersecurity/Privacy Attorney	15,962	-14.85%
GRC	Cyber Risk Analyst	8,787	-12.05%
Defense	Cloud Security Engineer	8,428	-33.99%
Offense	Application Security Engineer	8,403	-16.97%
Product Security	Cybersecurity Software Engineer	7,593	13.01%
Defense	Cybersecurity Specialist	7,313	1.32%
Response	Incident Responder	6,812	-28.87%
GRC	Governance and Compliance Analyst	6,799	-32.65%
Management	Cybersecurity Lead	6,743	-22.46%
Offense	Penetration Tester	5,865	-2.01%
Defense	Cyber Threat Intelligence Analyst	5,189	-35.52%
Offense	Red Teamer	5,189	-35.52%
Education	Cybersecurity Technical Writer	5,003	21.73%
Defense	Cybersecurity Administrator	4,862	5.47%
Management	Cybersecurity Director	4,498	-21.36%
Management	Chief Information Security Officer (CISO)	4,466	22.86%
Product Security	Product Security Engineer	3,981	-57.53%
Sales	Cybersecurity Sales Engineer	3,715	-50.01%
Response	Reverse Engineer / Malware Analyst	3,140	17.38%

January 2023 - December 2023

Source: CyberSN, 2024

Please Note*: Starting July 2023 data accumulation changed from 45 days to 30 days job posting

life cycle.

Key Takeaways & Considerations

22.36%

Decrease in cybersecurity job postings in the U.S. from 2022 to 2023

The largest growth of job postings in 2023:

- 1 Chief Information Security Officer (CISO) +22.86%
- 2 Cybersecurity Technical Writer +21.73%
- 3 Reverse Engineer / Malware Analyst +17.38%
- 4 Vulnerability/ Threat Management Analyst +14.9%
- 5 Cybersecurity Software Engineer +13.01%

The largest decrease of job postings in 2023:

- 1 Cybersecurity Professor / Instructor -67.01%
- 2 Insider Threat Analyst -62.33%
- 3 Product Security Engineer -57.53%
- 4 Cybersecurity Sales Engineer -50.01%
- 5 Cyber Data Scientist -43.25%

The biggest **category growth** was +100.89%

Response

The biggest **category decrease** was -69.06%

Research

Insights from Leadership



It is disheartening to witness the impact of capitalism on the cybersecurity profession, as evidenced by the drastic reductions in cybersecurity job postings from 2022 to 2023. What is even more disturbing about this data, is the decline in job postings for Product Security Engineers (57%) and DevSecOps (43%)! This is devastating news for us all. The amount of breaches that we are going to see and have already started to see from this reduction is terrible. Makes me very sad to see. I didn't think I needed to be any more motivated to finish our work of creating a risk framework and compliance control for retaining cybersecurity talent, yet somehow, this has managed to inspire me even more!

For anyone who thinks there aren't cyber jobs for them, it's not true. We were short 1 million cybersecurity professionals in the U.S before this economic shift and we are short even more now with all the outsourcing we are seeing! There is a 22% increase in Chief Information Security Officer (CISO) job postings in 2023 compared to 2022. This may come as a surprise to many security leaders who have endured prolonged periods of unemployment following layoffs. If you are a current job seeker, organizations are looking for you, the broken job searching system can make you think differently!



Deidre Diamond,
Founder & CEO, CyberSN
Founder, Secure Diversity
Co-Founder, Day of Shecurity Conference



The job posting information highlights the broader economic pressures and regulatory changes shifting strategic priorities creating potential and inadvertent cyber resilience debt for companies. The fluctuations in open positions suggest organizations are focusing more on the immediate threat response and high-level security strategy to accomplish regulatory compliance."



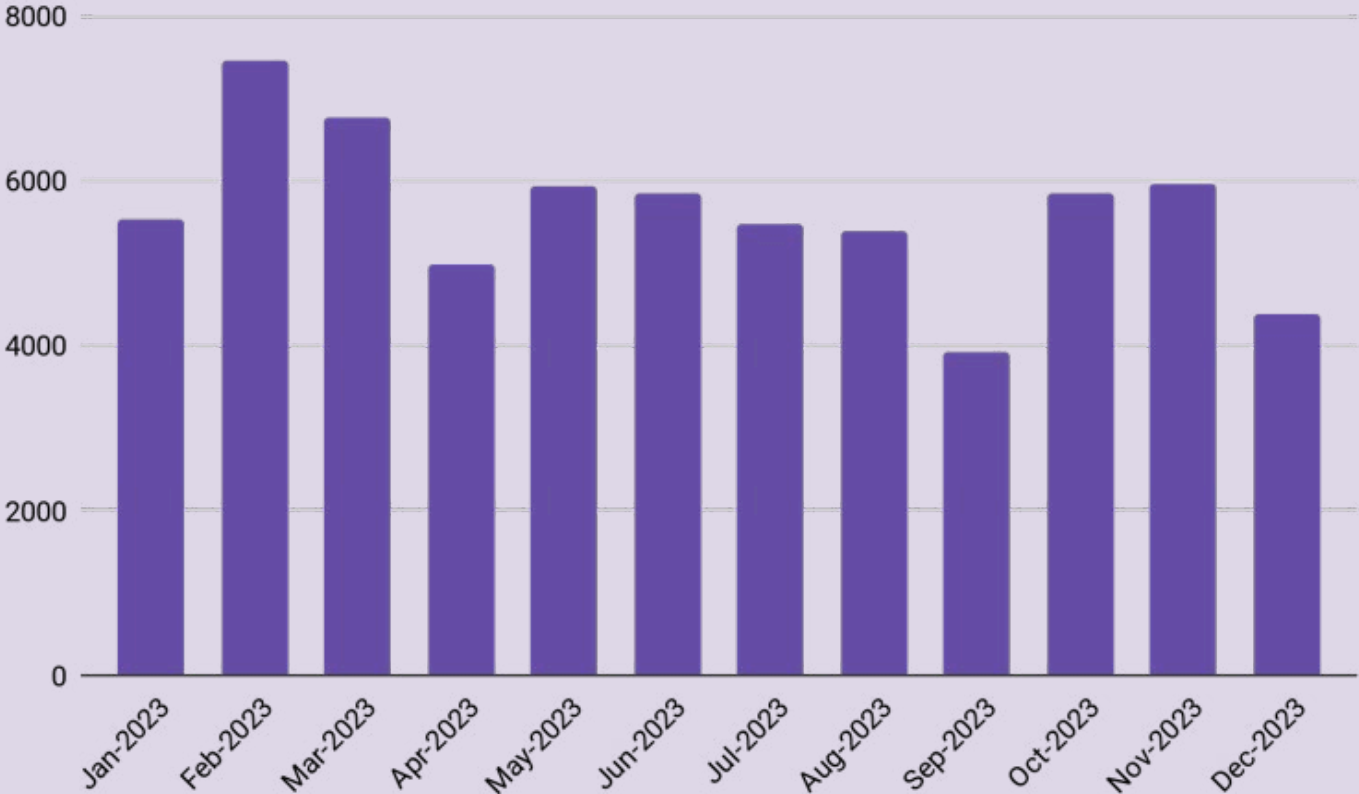
Dom Glavach,
Chief Security & Technology Officer, CyberSN

SECURITY ENGINEER

67,456 posted jobs

Security Engineers develop and maintain the systems that keep sensitive data safe from breaches and leaks. These professionals play a pivotal role in protecting an organization's data, reputation, and finances by working with penetration testers, security analysts, and technology managers to secure data, as well as installing firewalls and other breach detection systems.

January 2023 - December 2023 Source: CyberSN, 2024



CyberSN Taxonomy **Defense**

NICE **Securely Provision (SP)**

Operate and Maintain (OM)

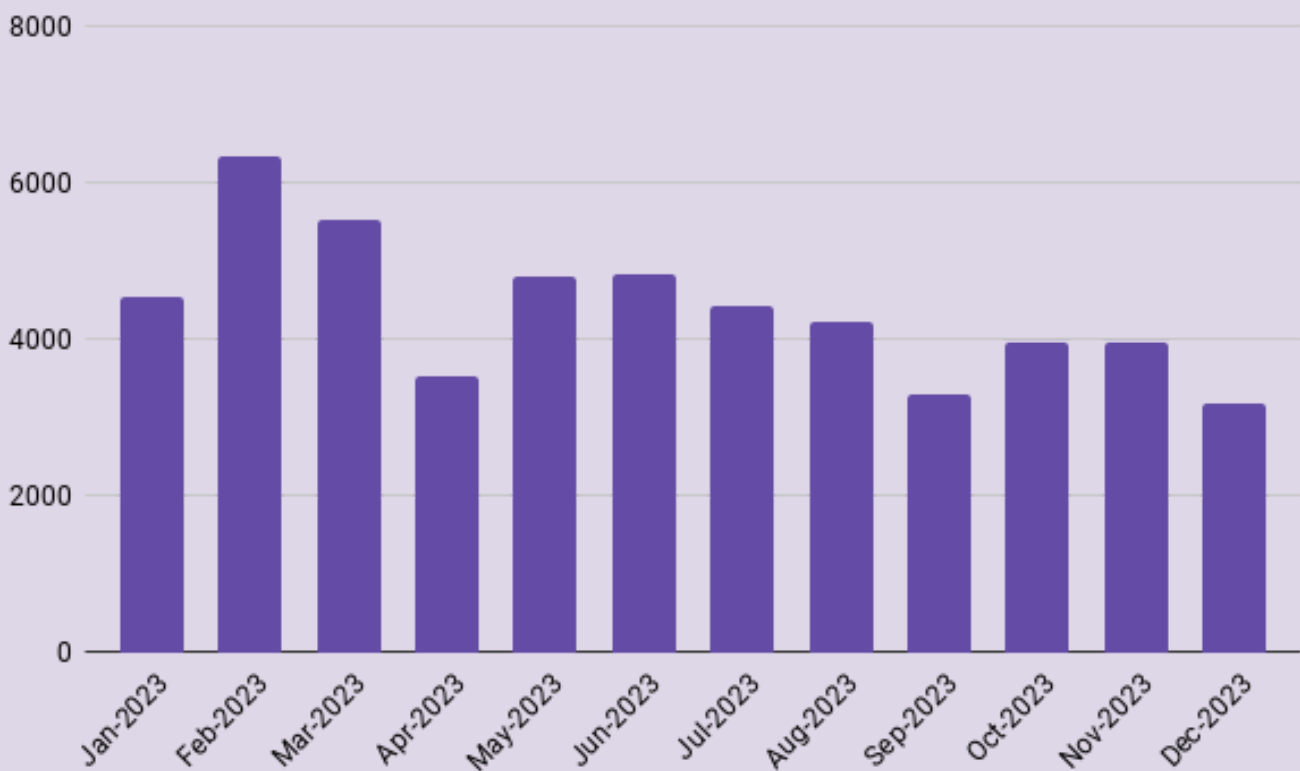
Please Note*: Starting July 2023 data accumulation changed from 45 days to 30 days job posting life cycle.

SECURITY ANALYST

52,579 posted jobs

Security Analysts are responsible for enhancing their organization's cybersecurity posture by monitoring and responding to threats, implementing or enhancing security solutions such as firewalls, endpoint security, and security event monitoring.

January 2023 - December 2023 Source: CyberSN, 2024



CyberSN Taxonomy

Defense

NICE

Operate and Maintain (OM)

Protect and Defend (PR)

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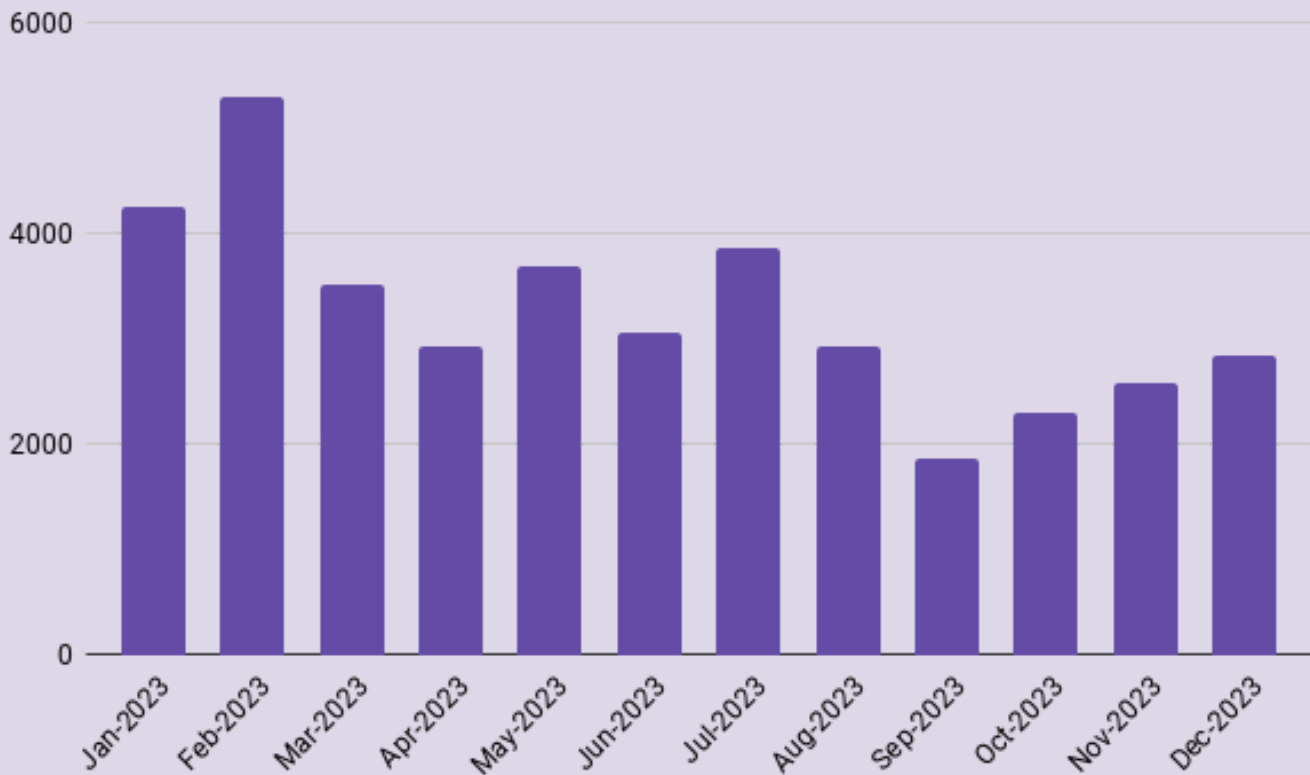
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DEVSECOPS

39,052 posted jobs

DevSecOps (Development, Security, and Operations) professionals use a combination of programming knowledge, threat management, and communication skills to automate and integrate cybersecurity at every stage of the SDLC lifecycle.

January 2023 - December 2023 Source: CyberSN, 2024



CyberSN Taxonomy

Product Security

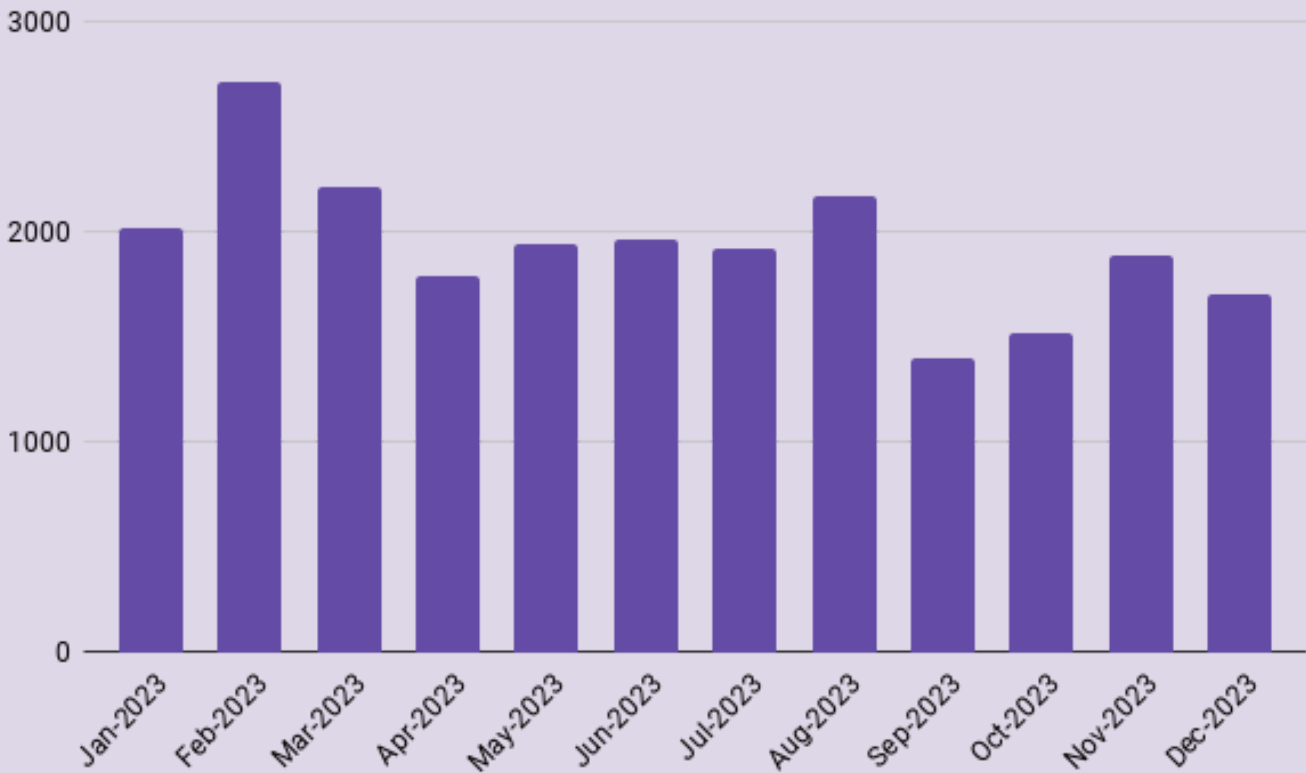
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SECURITY ARCHITECT

23,186 posted jobs

Security Architects combine extensive hardware and software knowledge with policy development to anticipate cyber threats and design the systems that detect and prevent them. When new networks are developed, a security architect is needed to oversee the network build and ensure that the best defensive measures are implemented from day one.

January 2023 - December 2023 Source: CyberSN, 2024



CyberSN Taxonomy **Planning**

NICE **Securely Provision (SP)**

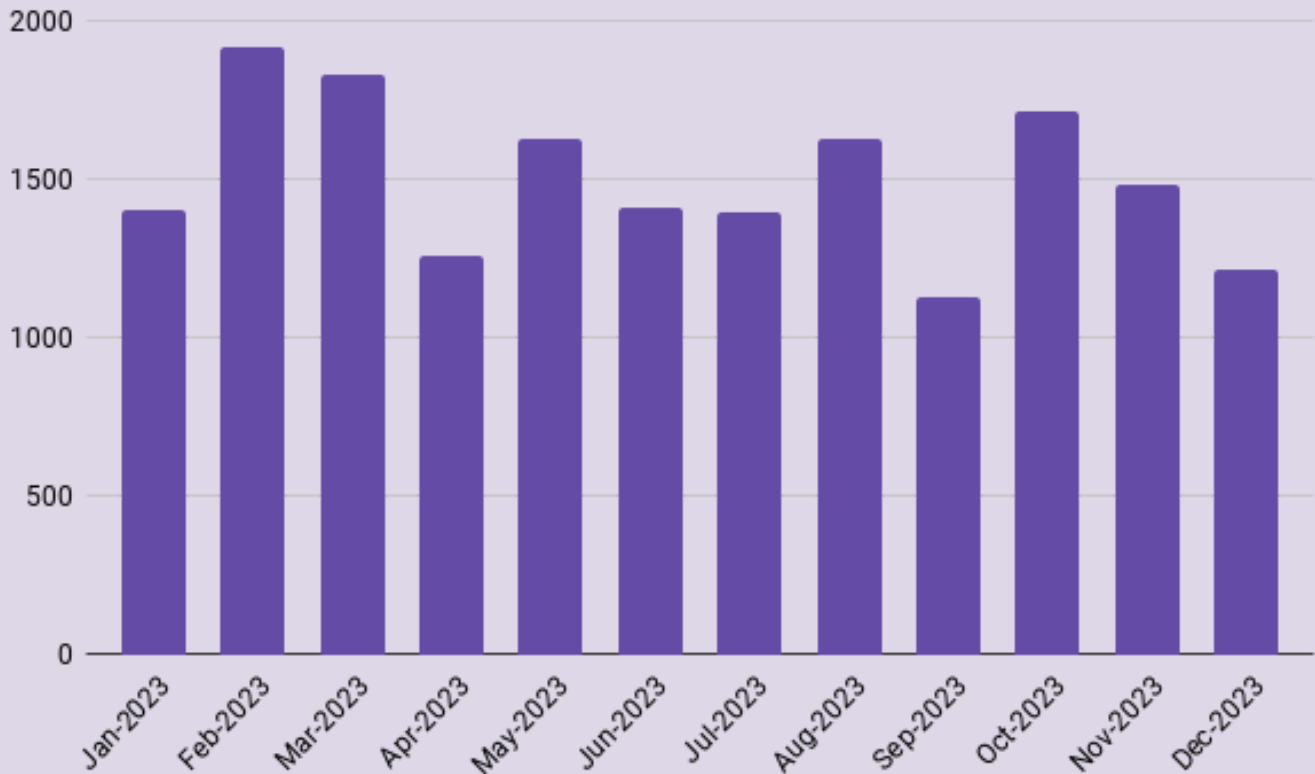
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CYBERSECURITY MANAGER

17,985 posted jobs

Cybersecurity Managers manage a variety of projects within their organization, facilitating the planning and prioritization of complex cybersecurity services. These projects may be complex and span many offices, departments, and entities. The projects they manage may be short-term or long-term and could include significant business and technology changes.

January 2023 - December 2023 Source: CyberSN, 2024



CyberSN Taxonomy **Planning**

NICE **Oversee and Govern (OV)**

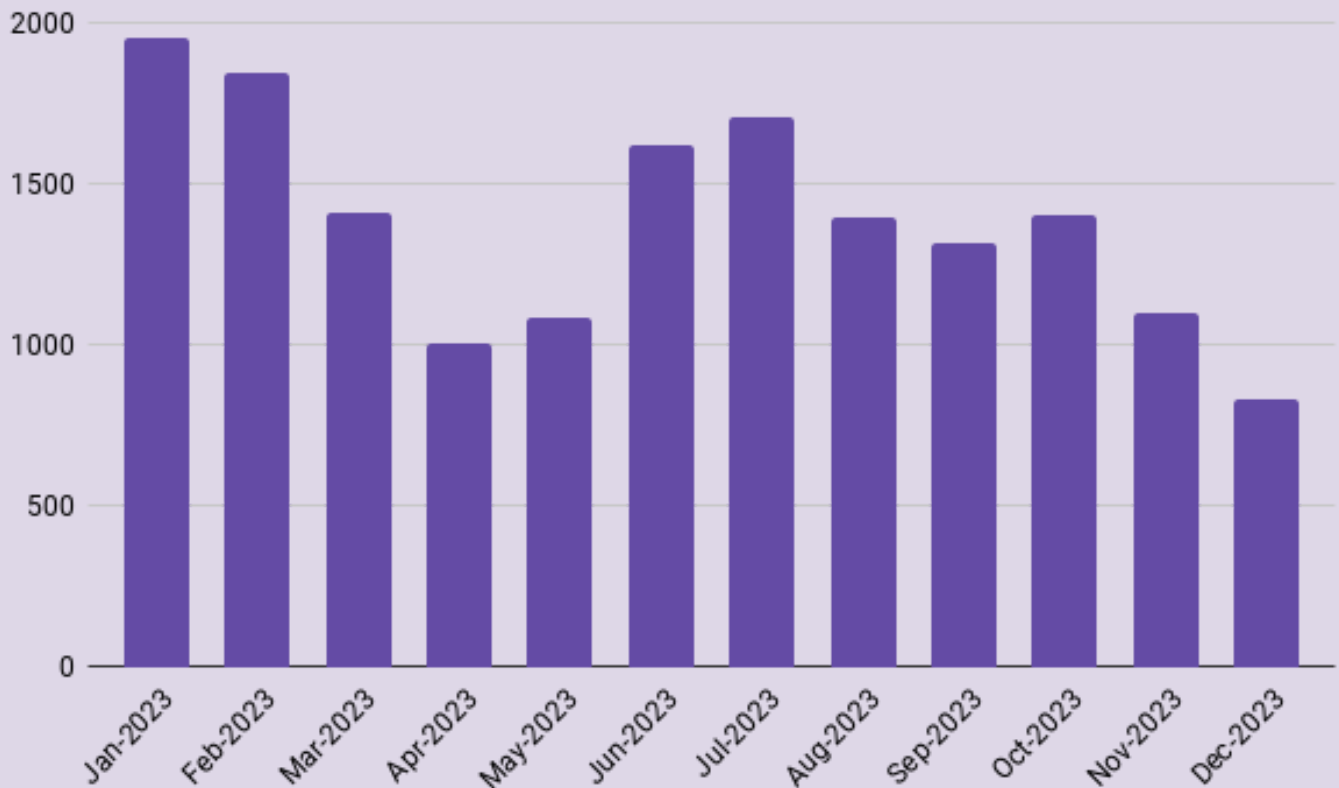
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IDENTITY AND ACCESS MANAGEMENT (IAM) ENGINEER

16,640 posted jobs

IAM Engineers implement and continuously optimize Identity and Access Management services in line with evolving technologies and security regulations. They are responsible for designing, implementing, and maintaining IAM technologies to ensure audit and privacy compliance, driving automation wherever possible. IAM Engineers also assist with resolving any security issues related to IAM operations.

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CyberSN Taxonomy

Defense

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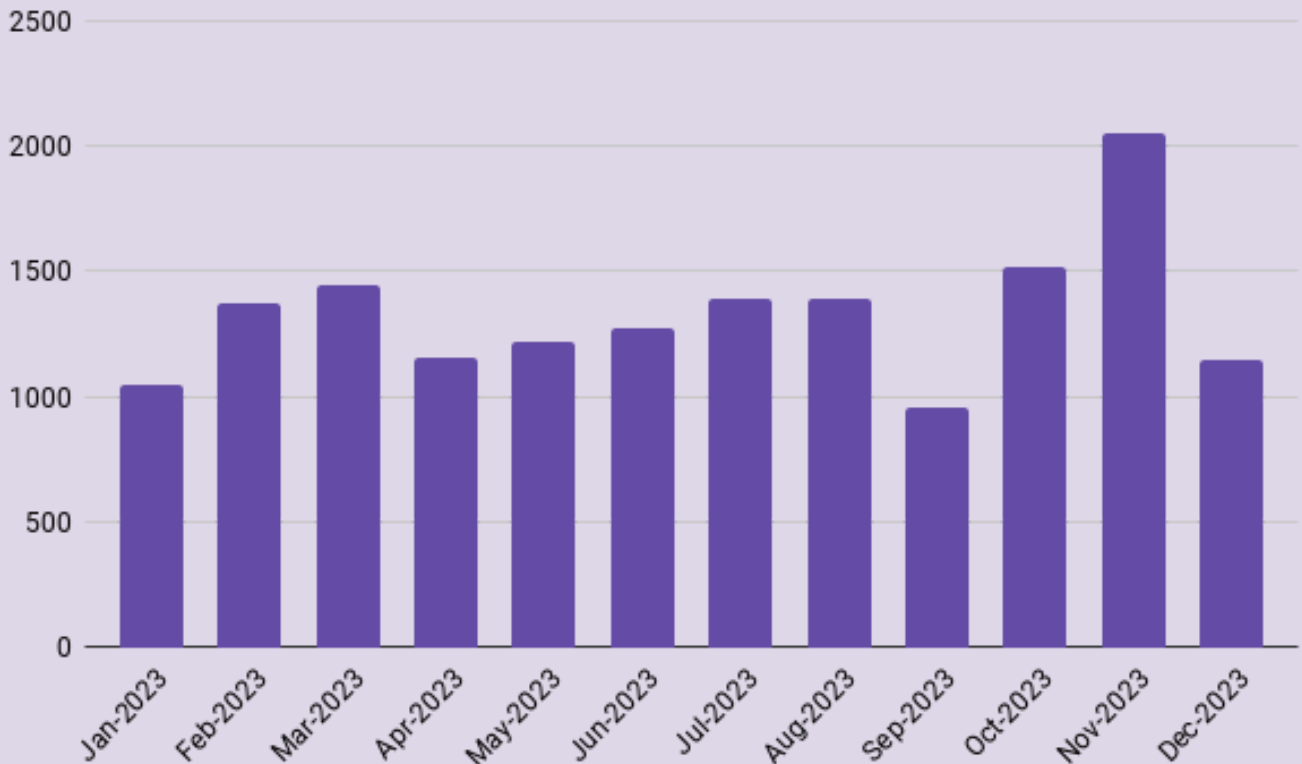
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CYBERSECURITY/PRIVACY ATTORNEY

15,962 posted jobs

Cybersecurity/Privacy Attorneys advise on implementing the right processes to meet state, federal and international legal requirements relevant to personal data. They also represent clients before regulatory bodies and help prepare the right responses and reactions during incident response to mitigate loss and ensure legal compliance.

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CyberSN Taxonomy

GRC

NICE

Oversee and Govern (OV)

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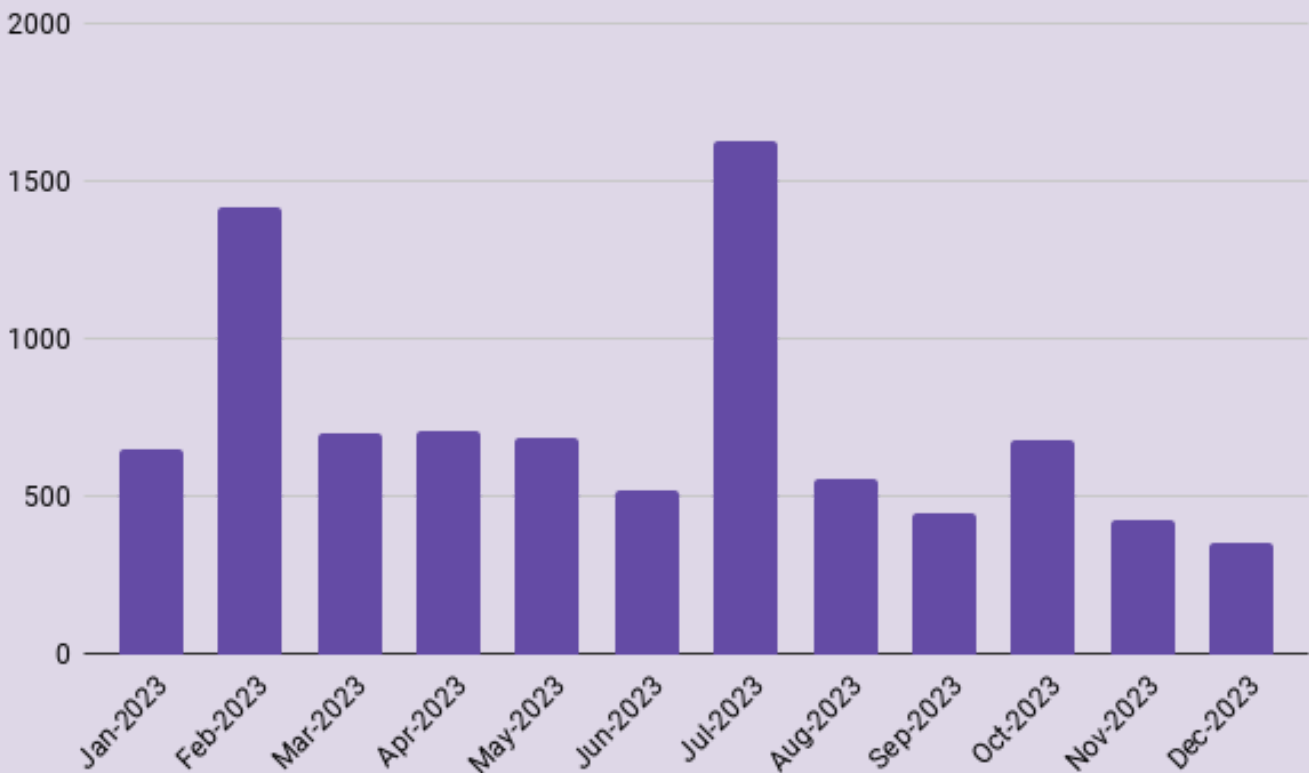
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CYBER RISK ANALYST

8,787 posted jobs

Cyber Risk Analysts support the analysis, classification, and response to cybersecurity risks within an organization. This professional addresses cybersecurity risk and analyses the potential business and customer risk, aligning processes and controls to the relevant frameworks and internal systems. The Cyber Risk Analyst is able to identify areas of concern for their specific organization, supporting resolution and mitigation by providing advice and recommendations.

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CyberSN Taxonomy

GRC

NICE

Securely Provision (SP)

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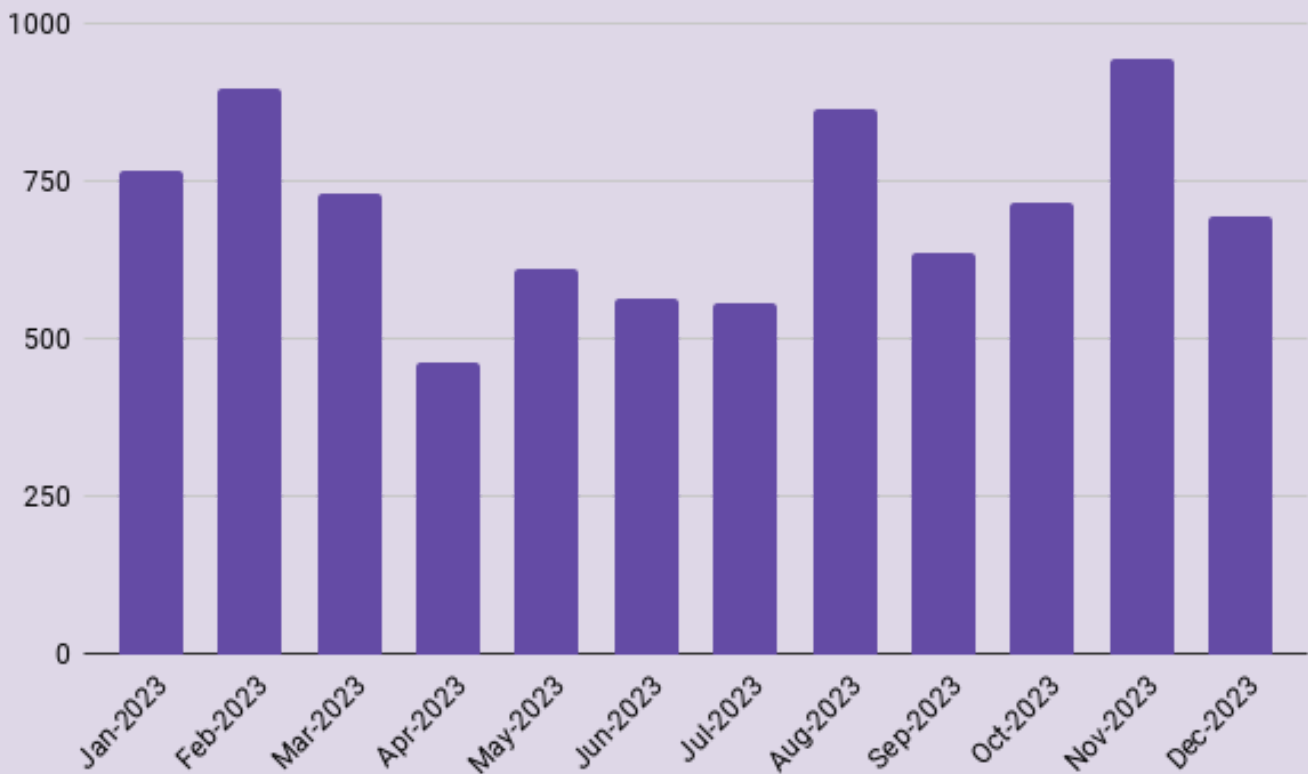
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CLOUD SECURITY ENGINEER

8,428 posted jobs

Cloud Security Engineers are responsible for the secure operations of cloud infrastructure, platforms, and software, including the installation, maintenance, and improvement of cloud computing environments. They also help develop new designs and security strategies across cloud-based applications, including infrastructure, platform, and SaaS.

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CyberSN Taxonomy

Defense

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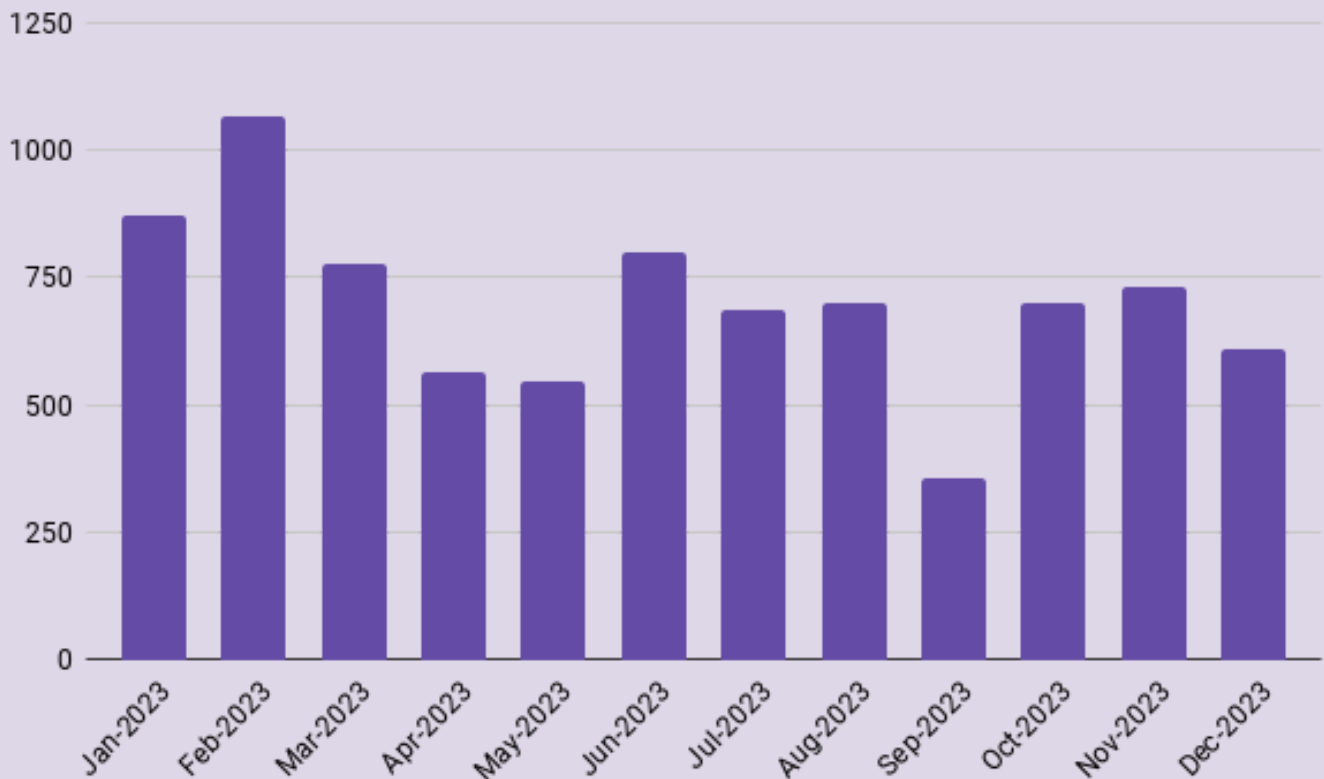
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APPLICATION SECURITY ENGINEER

8,403 posted jobs

Application Security Engineer develops and tests security components that make an application more secure. They proactively test their security posture from an attacker’s perspective, help shape engineering best practices, improve and drive application security monitoring, and work with the security team to educate engineers on emerging threats.

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CyberSN Taxonomy **Defense**

NICE **Securely Provision (SP)**

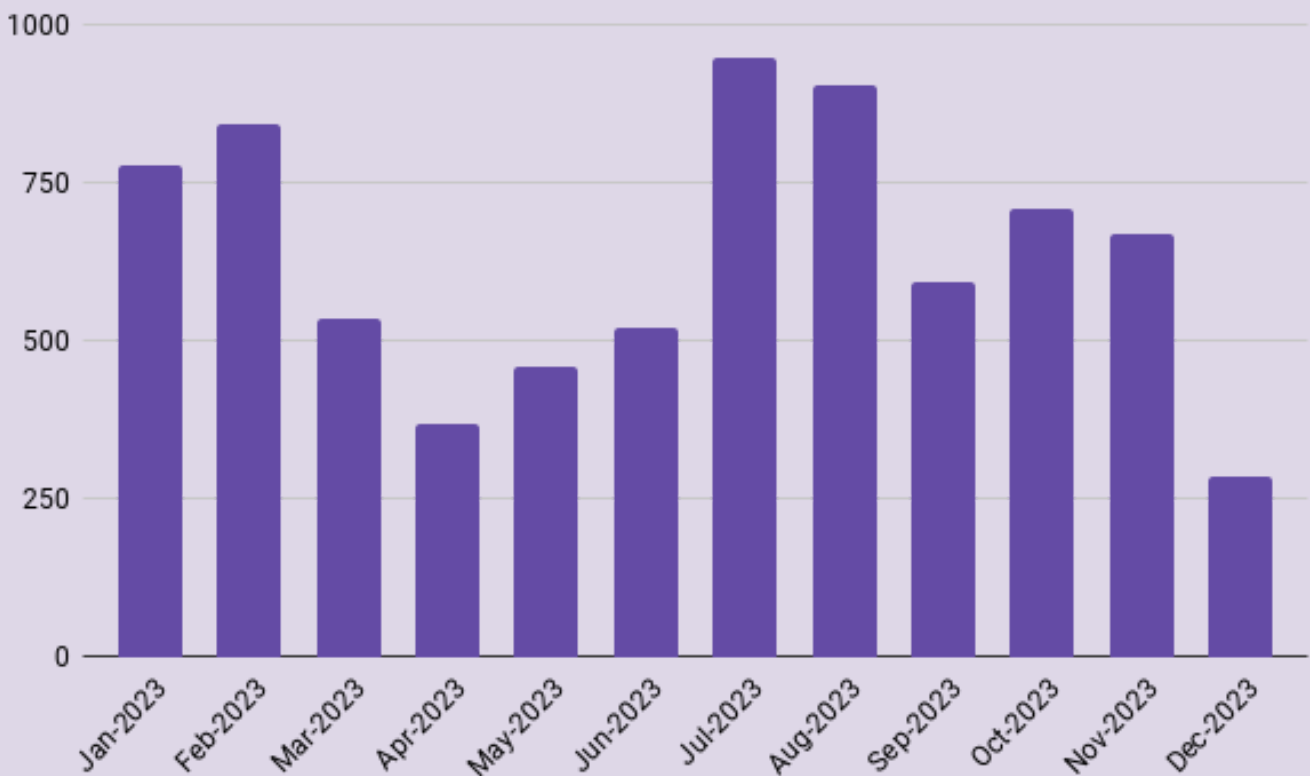
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CYBERSECURITY SOFTWARE ENGINEER

7,593 posted jobs

Cybersecurity Software Engineers are a key part of the entire software program lifecycle. They participate in the design, development, testing, and implementation of technologies to best meet the organization’s cybersecurity needs and business goals. Software Engineers are primarily responsible for the safety and efficacy of software, continually carrying out upgrades and testing. They may work as part of a software development team with other cybersecurity professionals or build each part of an application or program independently.

January 2023 - December 2023 Source: CyberSN, 2024



CyberSN Taxonomy

Product Security

NICE

Securely Provision (SP)

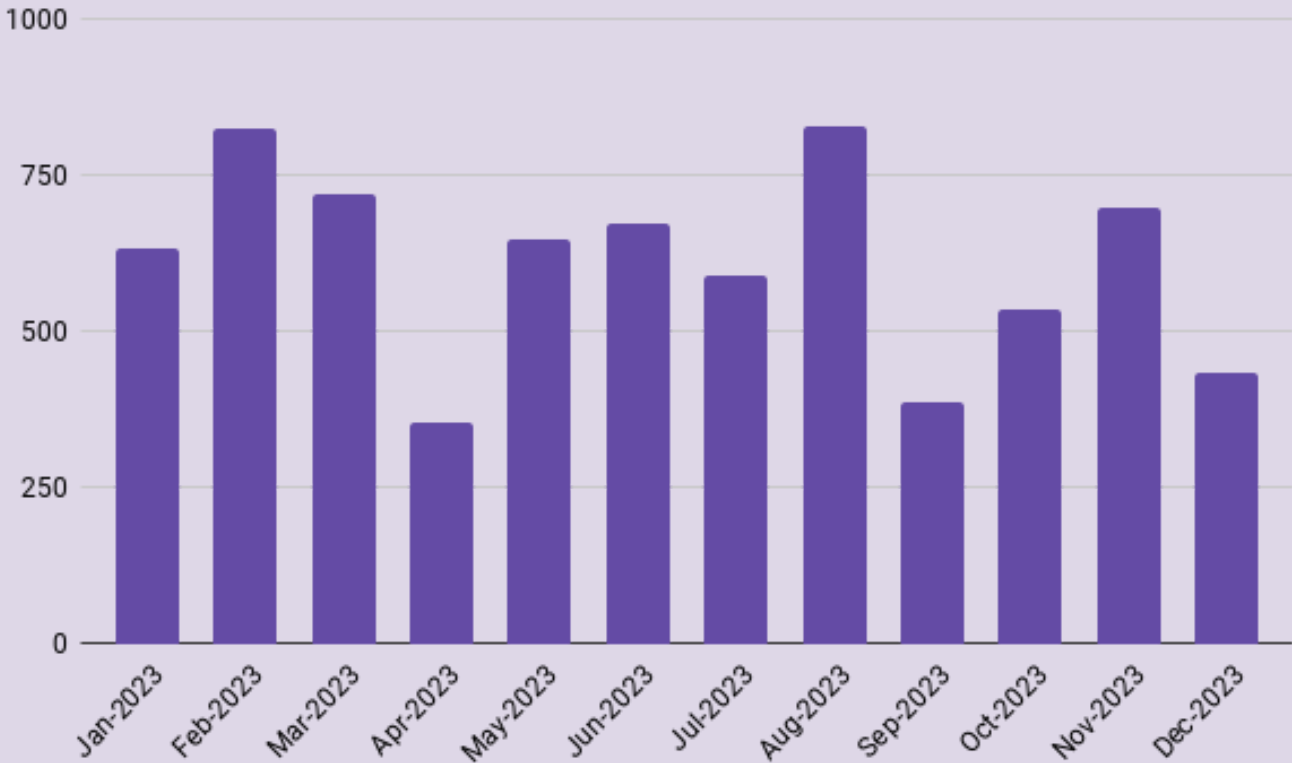
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CYBERSECURITY SPECIALIST

7,313 posted jobs

Cybersecurity Specialists take charge of their organization’s cybersecurity, or an aspect of cybersecurity, improving existing infrastructure, suggesting improvements, and staying current on new threats and solutions. By taking responsibility for their organization’s cybersecurity, Security Specialists secure company data and protect against cyberattacks and the subsequent reputational damage.

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CyberSN Taxonomy **Defense**

NICE **Operate and Maintain (OM)**

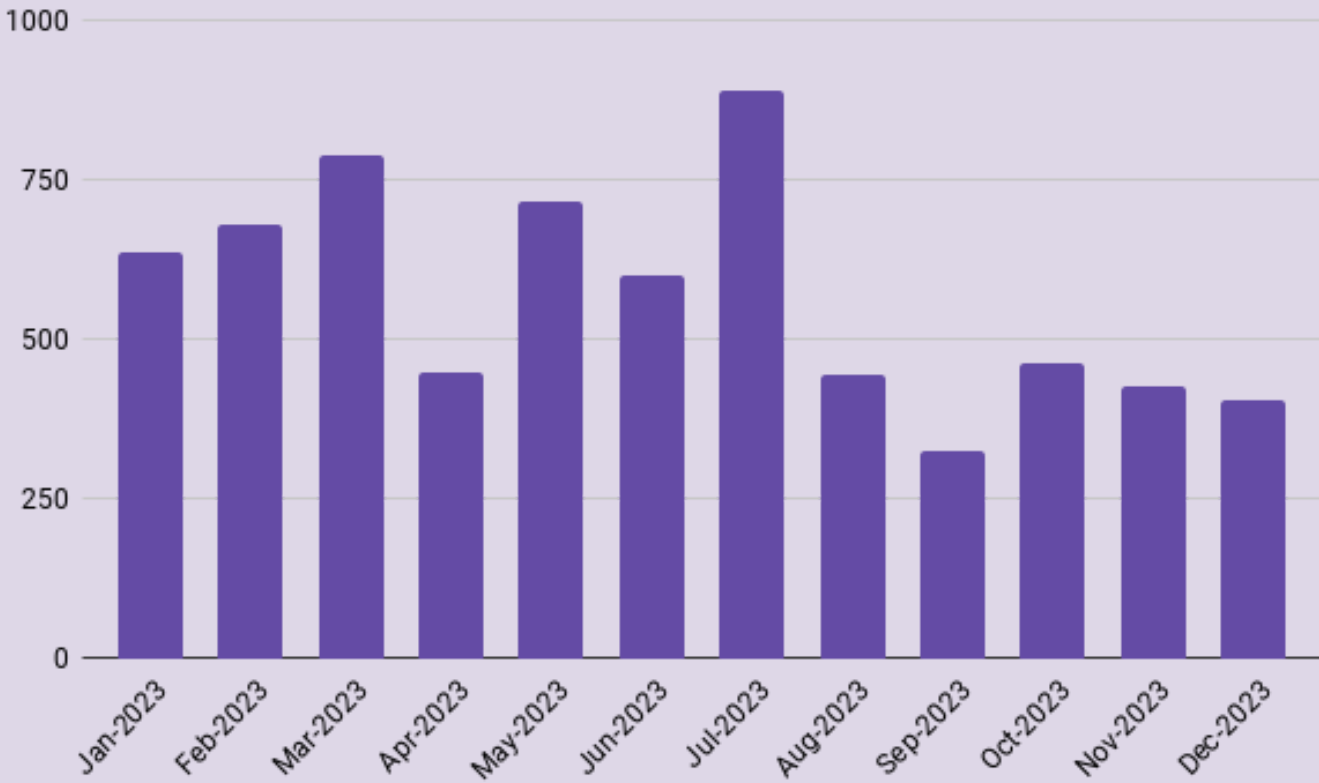
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INCIDENT RESPONDER

6,812 posted jobs

Incident Responders protect and improve an organization’s security by addressing and managing the activities to recover from a cybersecurity event. The Incident Responder makes an assessment on threat severity, conducts investigations, and works to contain, eradicate, and recover from threats.

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CyberSN Taxonomy **Response**

NICE **Protect and Defend (PR)**

INVESTIGATE (IN)

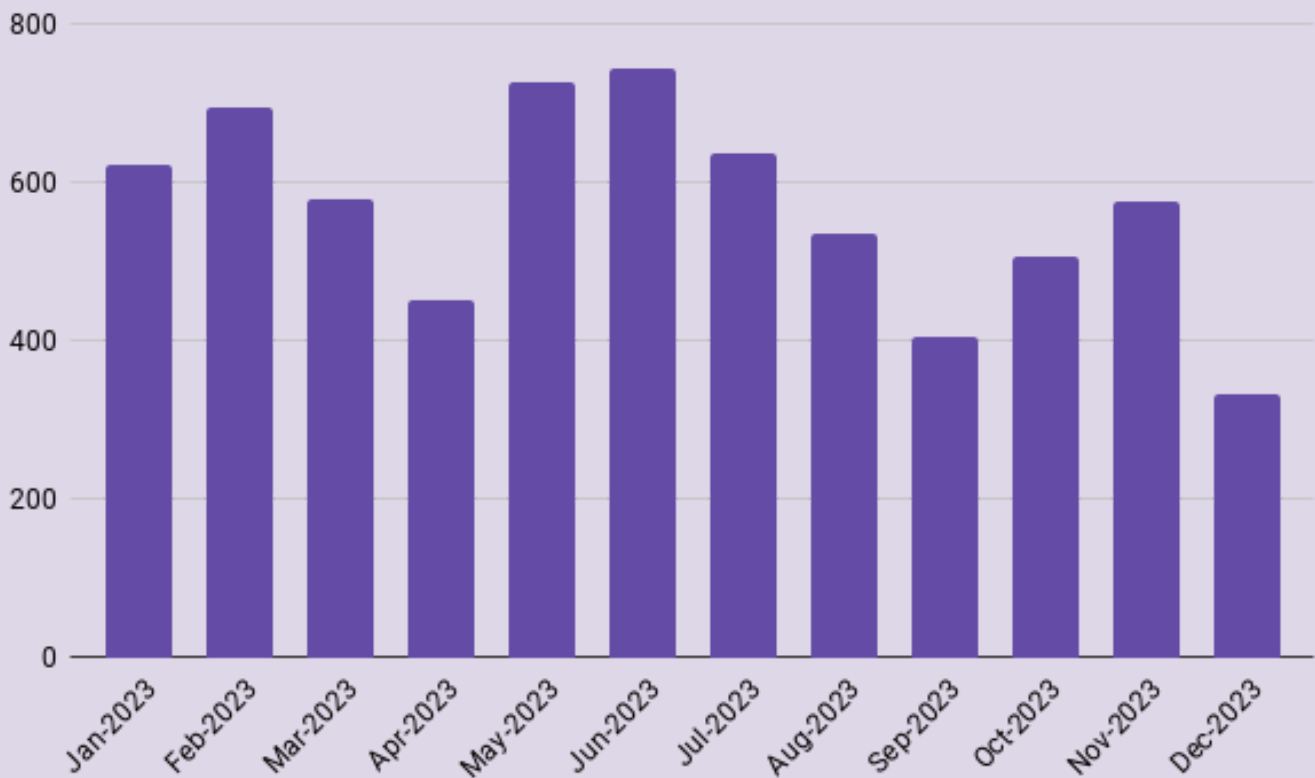
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GOVERNANCE AND COMPLIANCE ANALYST

6,799 posted jobs

Governance and Compliance Analysts ensure that an organization’s operations and procedures meet government and industry compliance standards. They research regulations and policies on behalf of the enterprise, communicate the necessary requirements, apply for certifications, and serve as a subject matter expert on all compliance-related matters.

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CyberSN Taxonomy

GRC

NICE

Oversee and Govern (OV)

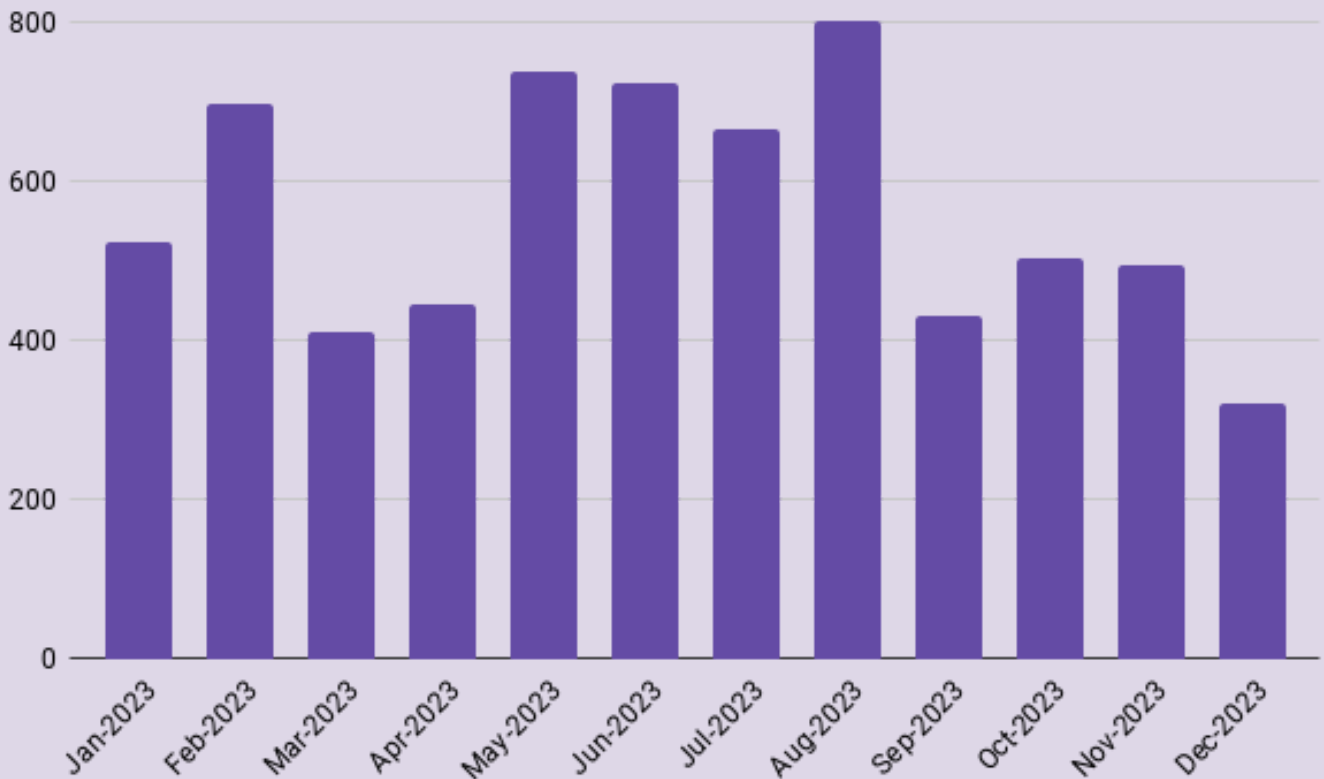
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CYBERSECURITY LEAD

6,743 posted jobs

Cybersecurity Leads head up the cybersecurity team, or a specific department within the cybersecurity team, responsible for ensuring that teams are working towards the right goals efficiently. Cybersecurity Leads oversee the delivery of services, manage relationships, and take control of any issues in their department or specialism.

January 2023 - December 2023 Source: CyberSN, 2024



CyberSN Taxonomy **Management**

NICE **Oversee and Govern (OV)**

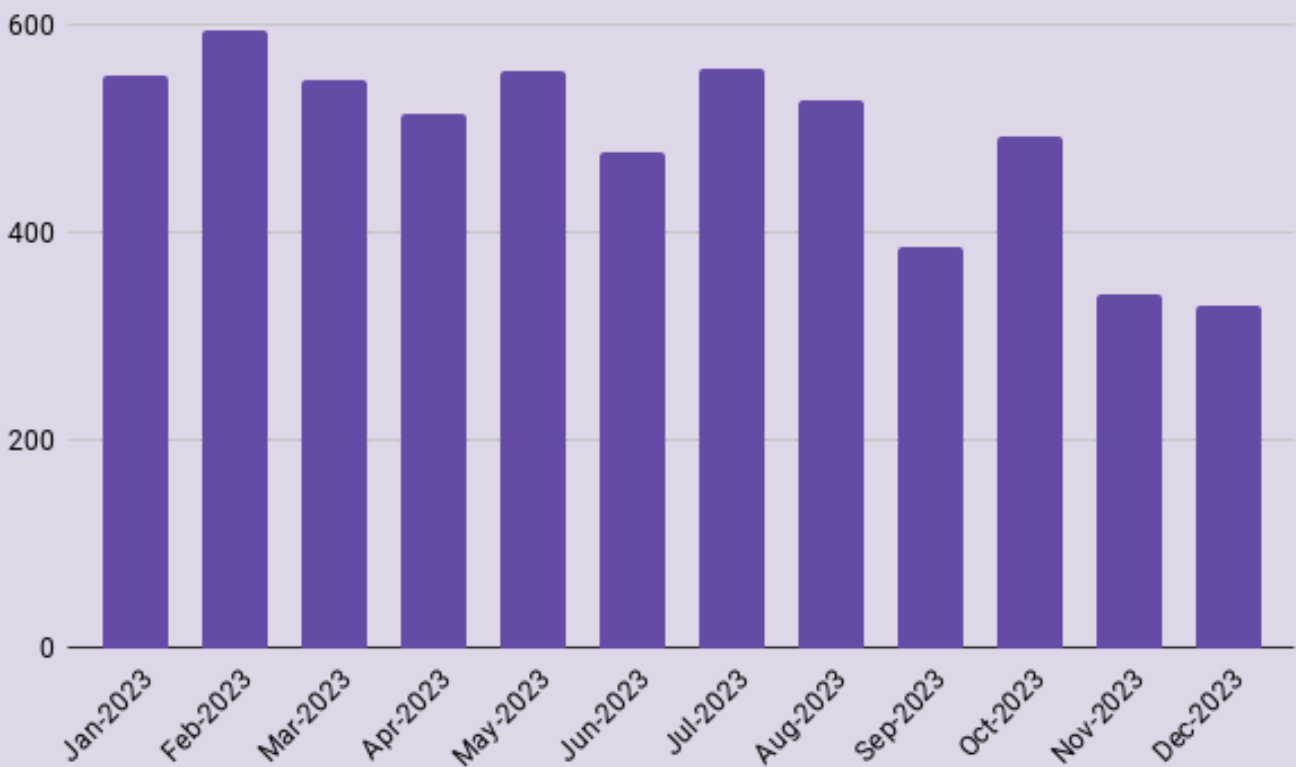
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PENETRATION TESTER

5,865 posted jobs

Penetration Testers identify and attempt to breach weaknesses in an existing system to help organizations resolve security vulnerabilities and weaknesses. These systems include websites, data storage systems, and other IT assets. This testing simulates cyberattacks and other breaches designed to access valuable sensitive data. Pen Testers can then document their actions to generate detailed findings and remediation reports.

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CyberSN Taxonomy

Offense

NICE

Securely Provision (SP)

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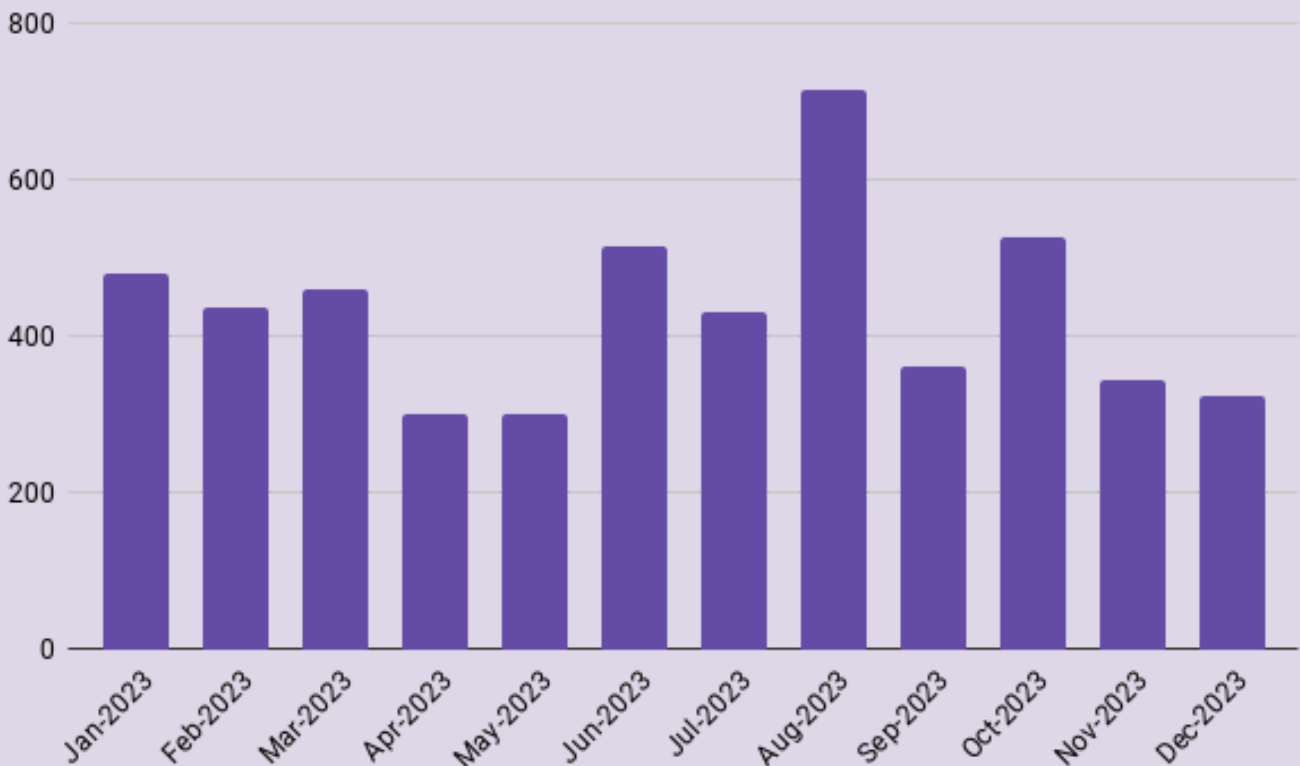
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CYBER THREAT INTELLIGENCE ANALYST

5,189 posted jobs

Cyber Threat Intelligence Analysts use their expert knowledge of malicious software to research and analyze cyber threats, reporting their findings to business leaders, using this intelligence to predict similar attacks, and ultimately helping to counter the activities of cybercriminals for their organization.

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CyberSN Taxonomy

Defense

NICE

Analyze (AN)

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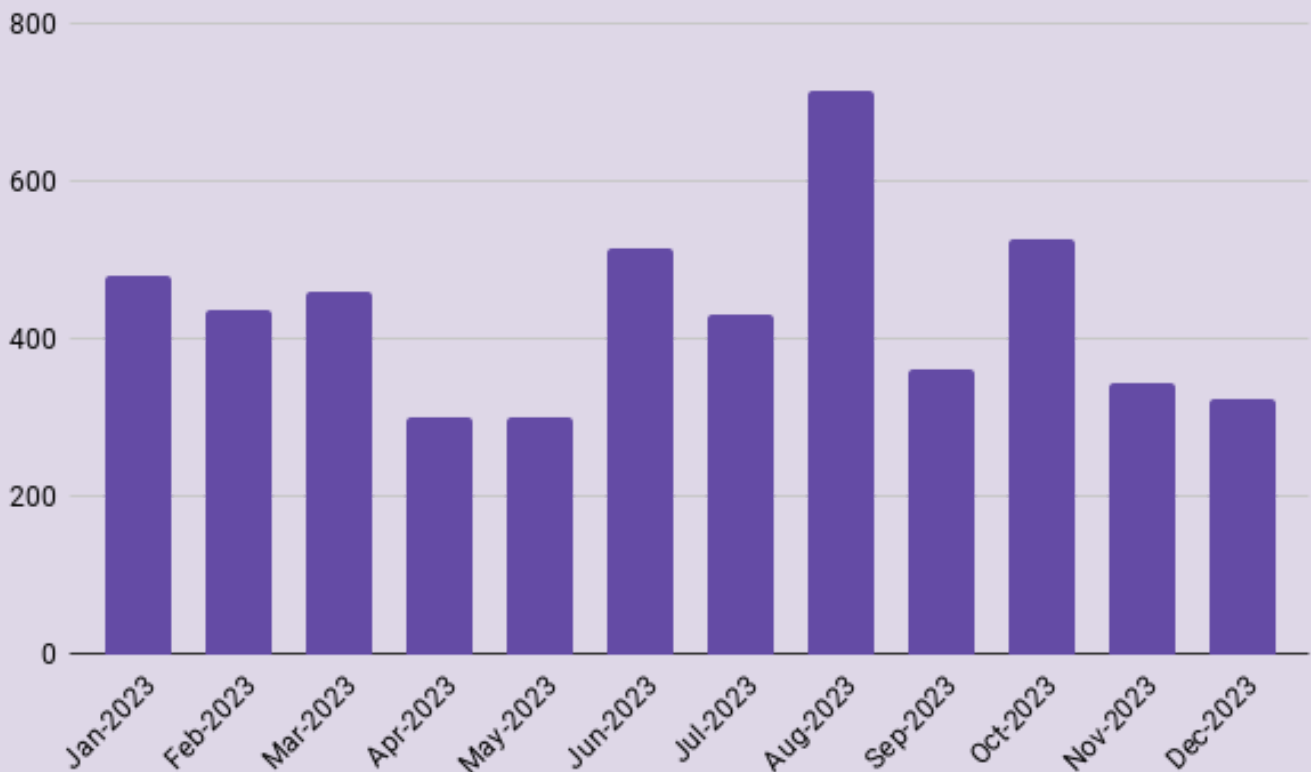
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RED TEAMER

5,189 posted jobs

Red Teamers access sensitive information that achieves their unique goal. They do this by acting as swiftly and quietly as possible, emulating a malicious actor. Red Team assessments are employed to rigorously test an organization's detection and response capabilities. A Red Team assessment is far more targeted than penetration testing.

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CyberSN Taxonomy

Offense

NICE

Analyze (AN)

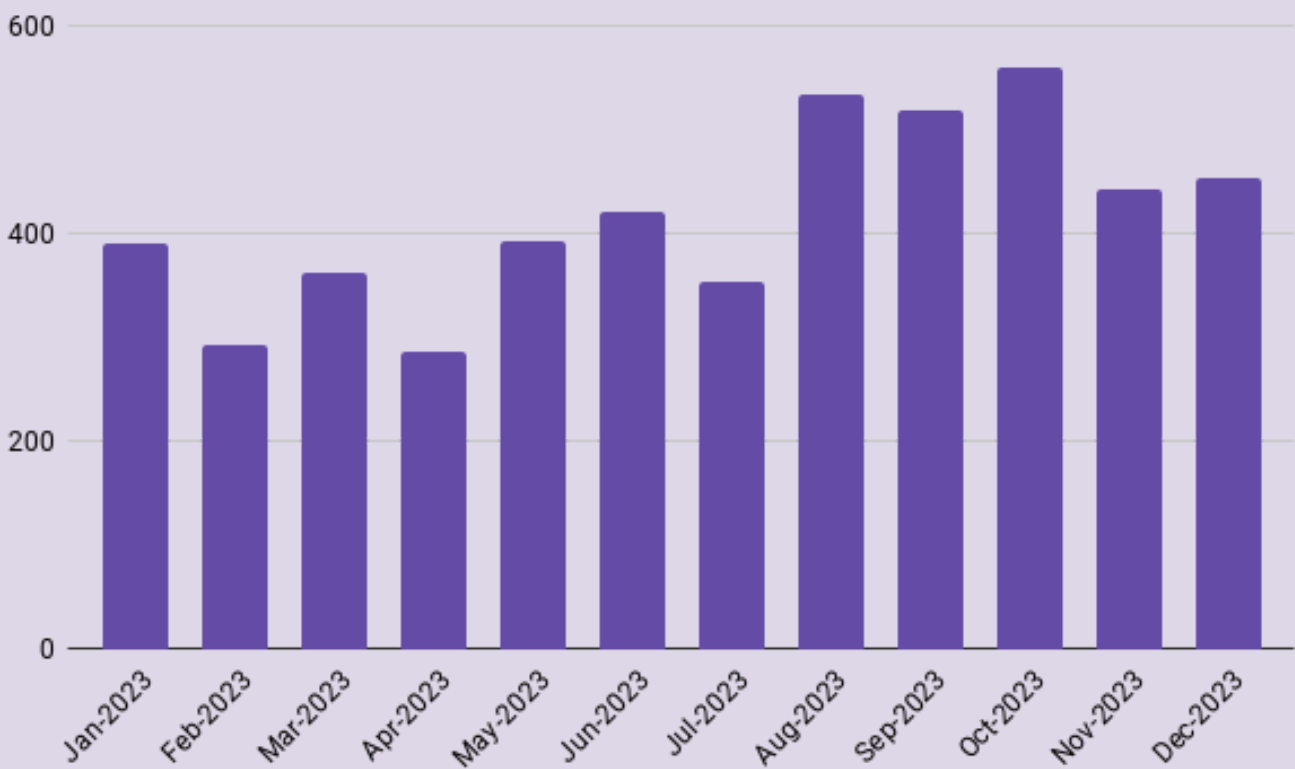
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CYBERSECURITY TECHNICAL WRITER

5,003 posted jobs

Cybersecurity Technical Writers create and oversee cybersecurity content, whether it's composing reports, synthesizing data, creating manuals, or editing cybersecurity policies to resonate with the target audience. These professionals convert strategy into actionable steps or digestible copy, working with the organization's needs and cybersecurity goals in mind to plan and proofread technical documentation. Technical writers can successfully expound on a variety of topics so that other professionals can easily understand and further use the company documentation they write.

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CyberSN Taxonomy **Education**

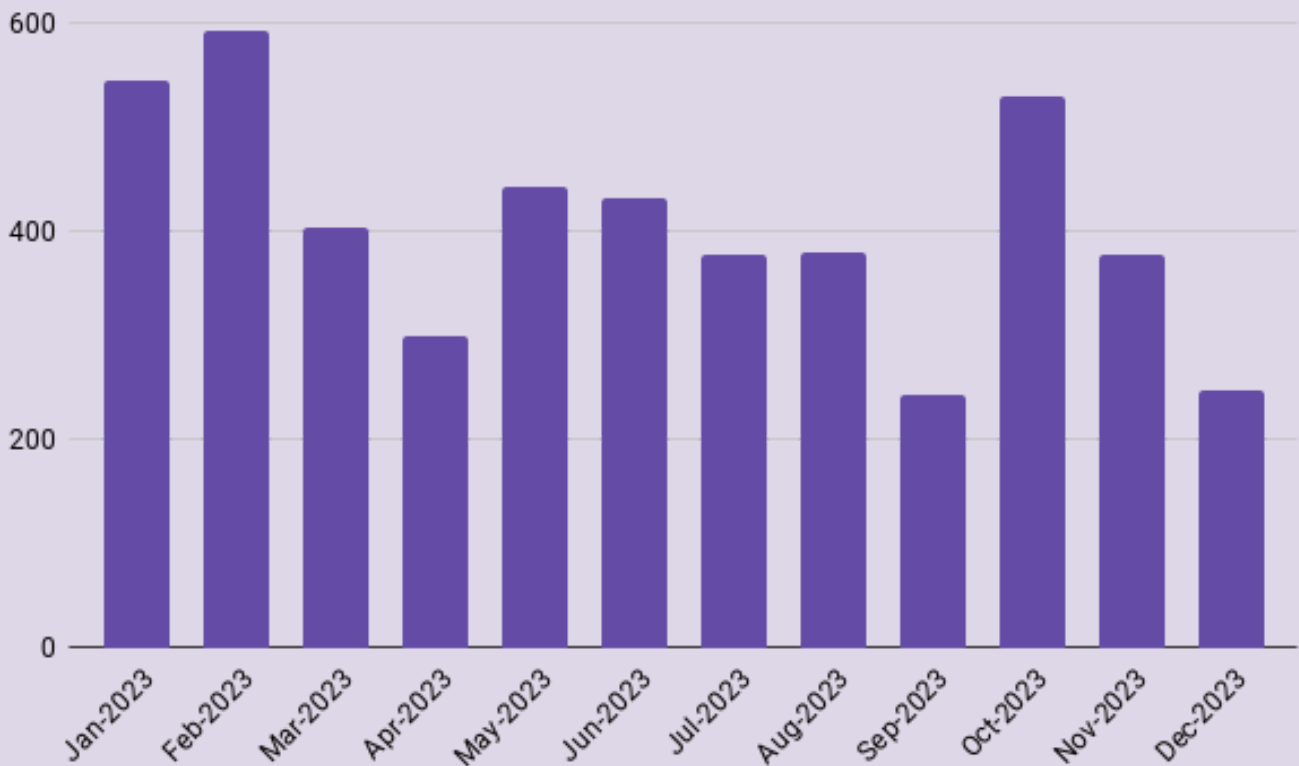
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CYBERSECURITY ADMINISTRATOR

4,862 posted jobs

Cybersecurity Administrators typically work as part of a team to cover all the digital security needs of an organization. The role varies with the size and nature of the organization, but in general, Security Administrators ensure the safety of the organization's data. They are tasked with managing the safety of the business' systems, networks, applications, devices, hardware, and software.

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CyberSN Taxonomy

Defense

NICE

Protect and Defend (PR)

Operate and Maintain (OM)

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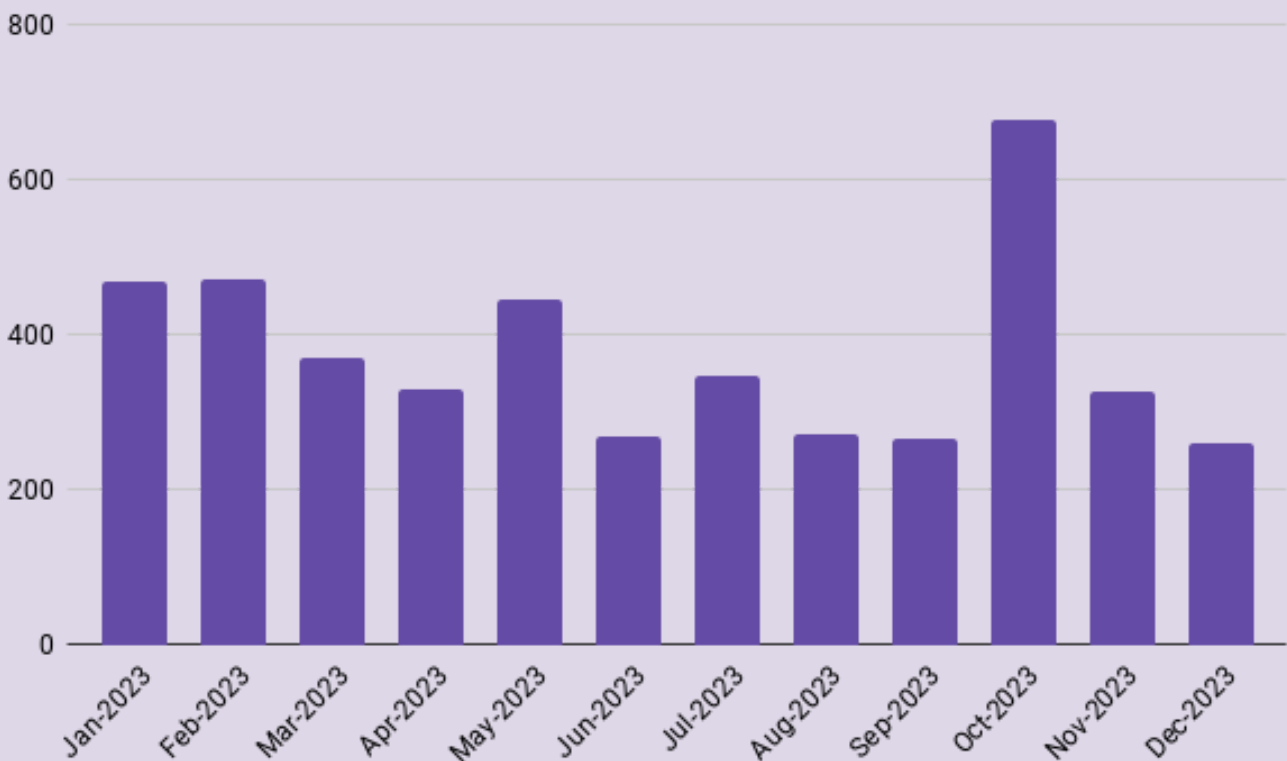
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CYBERSECURITY DIRECTOR

4,498 posted jobs

Cybersecurity Directors are responsible for overseeing an organization's overall cybersecurity. The role supervises aspects of IT security including design, development, implementation, incident response, budgets, and adherence to various regulations. The Cybersecurity Director contributes to overall cybersecurity strategy by identifying growth opportunities based on the latest threats, as well as managing security personnel and reporting on the company's cybersecurity posture.

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CyberSN Taxonomy

Management

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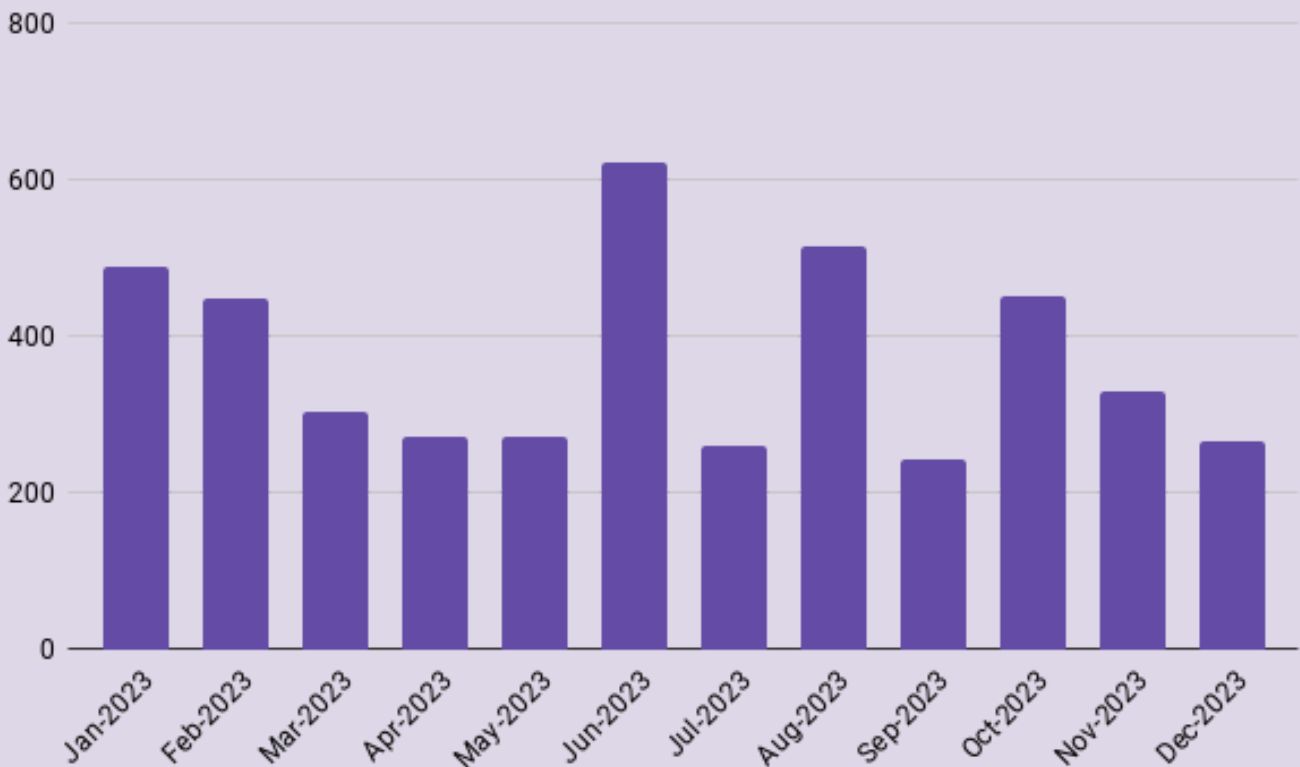
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CHIEF INFORMATION SECURITY OFFICER (CISO)

4,466 posted jobs

CISOs develop information security policies and procedures for a business or organization. They manage teams of security analysts, information security specialists, and fellow executives to identify and manage security threats for the business. CISOs work in organizations across all sectors, carefully monitoring for security vulnerabilities and allocating resources to increase efficacy and efficiency.

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CyberSN Taxonomy

Management

NICE

Oversee and Govern (OV)

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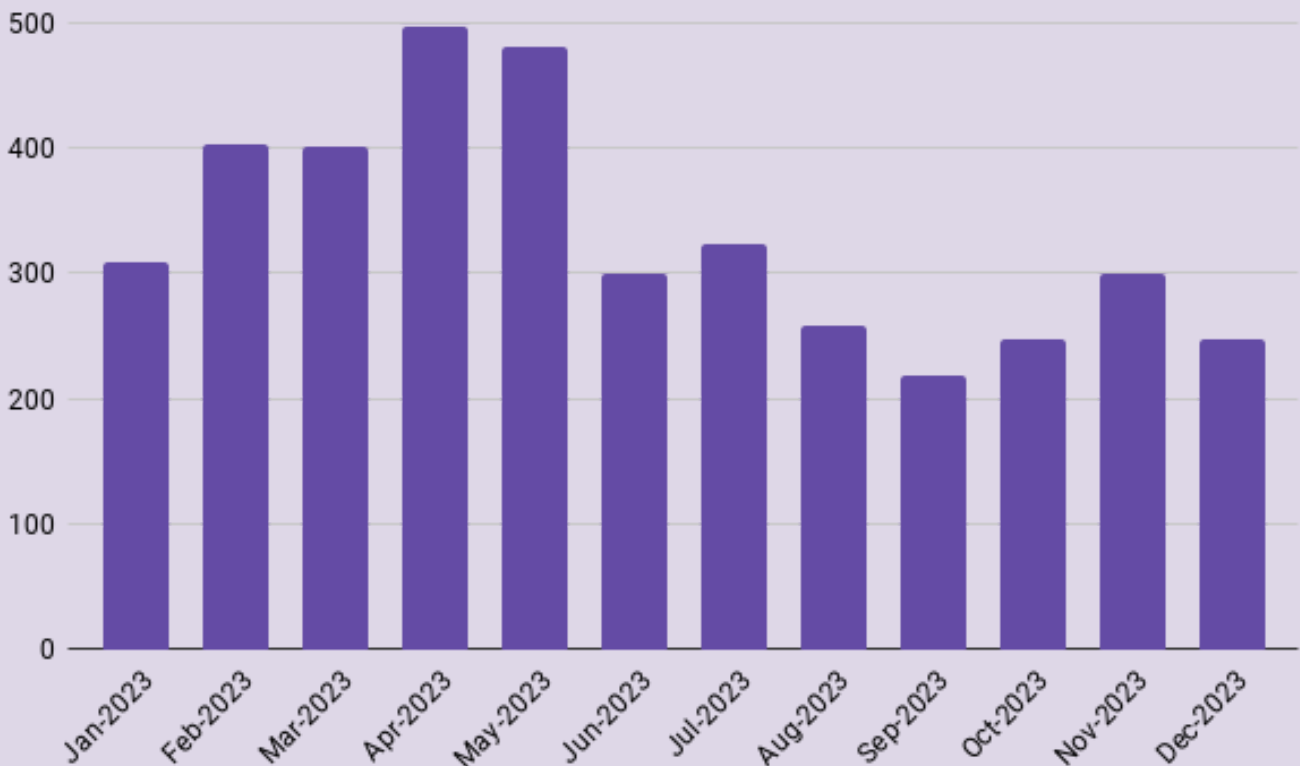
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PRODUCT SECURITY ENGINEER

3,981 posted jobs

Product Security Engineers work closely with software engineering and product teams to achieve product and security business objectives. They support the implementation of secure development practices, threat modelling, architecture, design, vulnerability assessments and security verification, as well as defining the security standards for a variety of products and tools.

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CyberSN Taxonomy

Product Security

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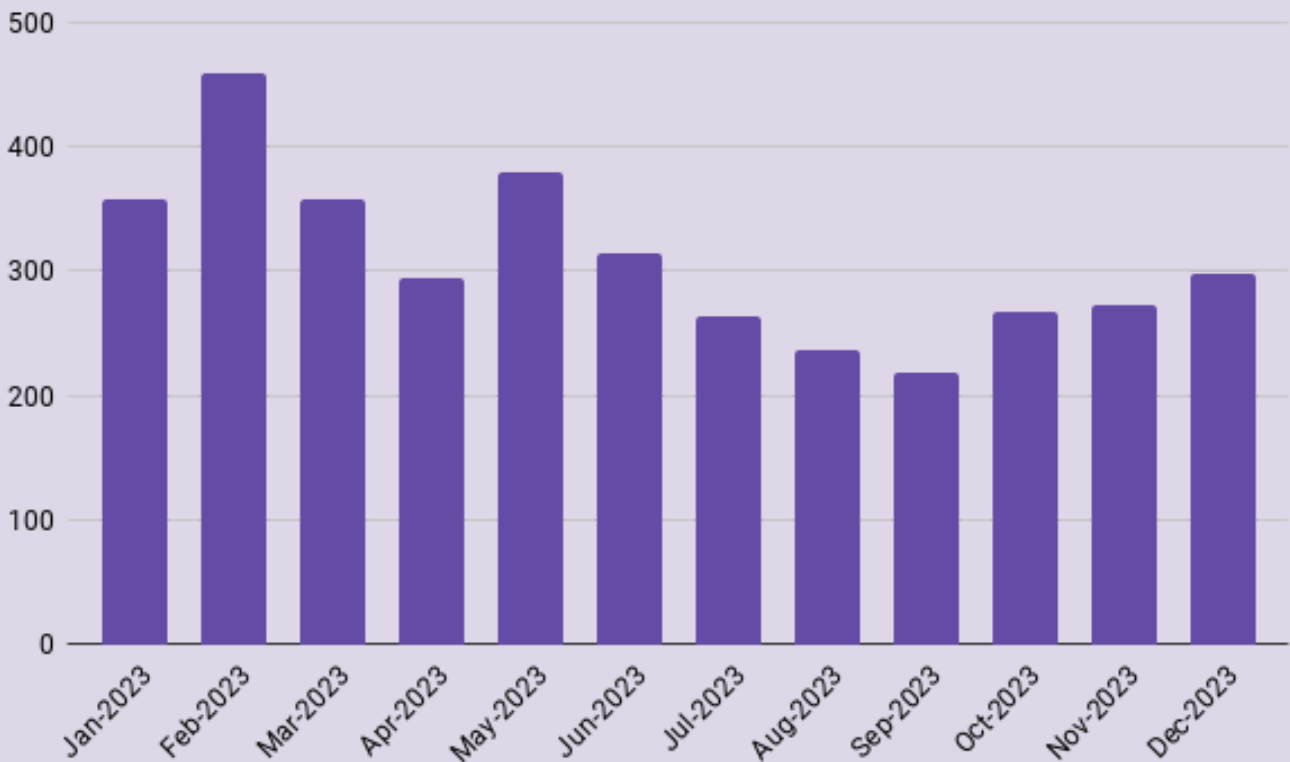
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CYBERSECURITY SALES ENGINEER

3,715 posted jobs

Cybersecurity Sales Engineers actively drives and manages the technology evaluation stage of the sales process, working with the entire sales team to advise on all product sales. Sales Engineers unite technical knowledge and sales skills and are able to explain, in detail, the technical and functional aspects of a product or service, prepared for any technical questions or issues that may arise.

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CyberSN Taxonomy

Sales

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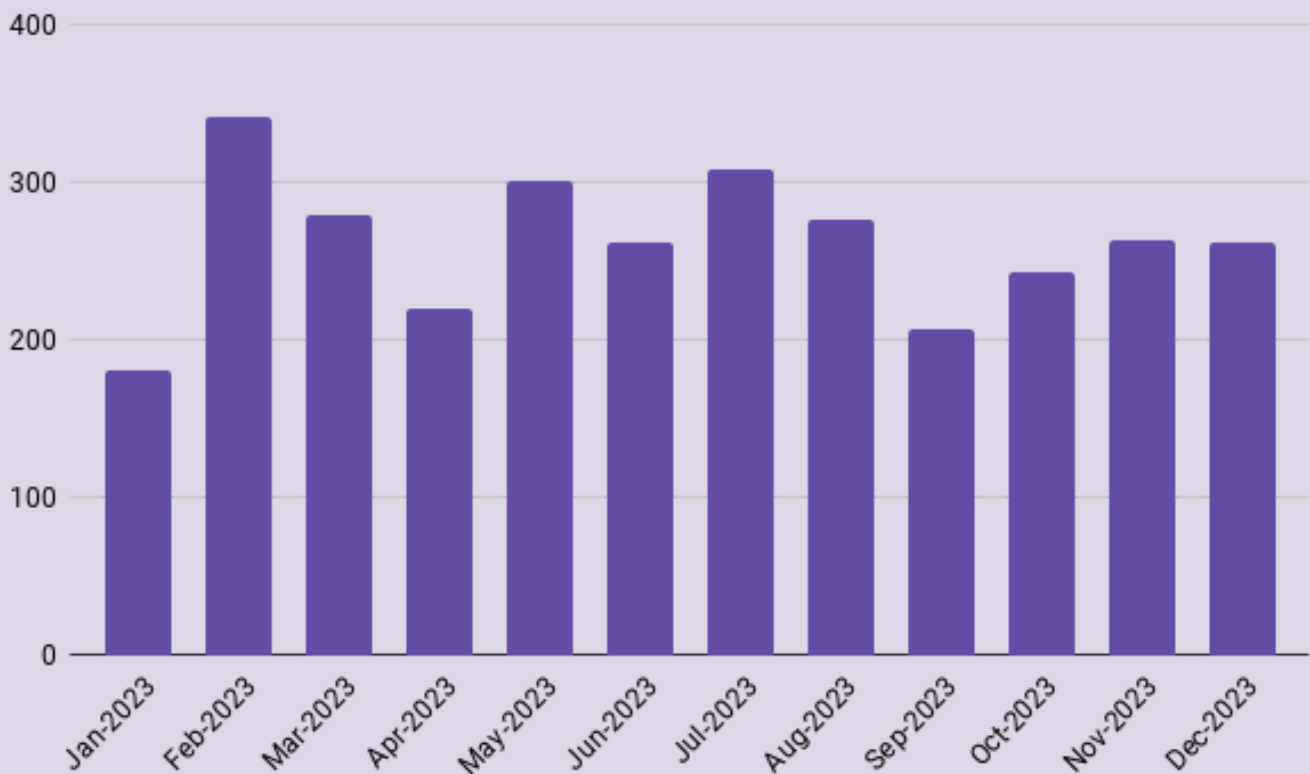
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REVERSE ENGINEER

6,612 posted jobs

Reverse Engineers, also known as Malware Analysts, use decompiling, disassembling, and de-obfuscating to gain a deeper understanding of how and what a malicious software operates. They identify, examine, and understand various forms of malicious software, such as adware, bots, rootkits, spyware, ransomware, Trojan horses, viruses, and worms.

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CyberSN Taxonomy

Response

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Get in Touch

For more insights on the cybersecurity job market, [contact CyberSN.](#)

