

# Xiao He

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Cloud Security Manager and Security Engineer with strong communication and project management competency. Experience with building scalable and secure cloud infrastructure. Self-starter and avid tech explorer with experience in growing startups.

## Skills

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|-----------------------------|----------------------------------|----------------------------------|
| ➤ Cloud Architecture Review | ➤ Identity and Access Management | ➤ M&A Due Diligence              |
| ➤ Security Automation       | ➤ Engineering Management         | ➤ M&A integration                |
| ➤ Security Engineering      | ➤ Risk Management                | ➤ Contract Terms Negotiation     |
| ➤ Threat Modeling           | ➤ Vulnerability Management       | ➤ Vendor Relationship Management |
| ➤ DevSecOps                 |                                  |                                  |

## Experience

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### Twilio Inc.

**Manager, Cloud Security** February 2022 to Present

- Manage Twilio's Cloudsec maturity roadmap and build foundational Cloud Security capabilities.
- Organize, lead, and facilitate project cycles through rigorous planning, easy-to-follow checklists, and regular retrospectives with 3-4 projects shipped per quarter on average.
- Cultivate cross-functional relationships with peer security teams, core infrastructure, and product teams to unblock ongoing efforts and coordinate new initiatives.
- Manage a team of 9 with early-in-career, mid-career, and staff-level engineers, hold regular career development conversations, and lead Cloud Security hiring expansion efforts.
- Organize gap analysis, evidence gathering, and remediation for SOC 2 and PCI DSS.

**Tech Lead / Staff Cloud Security Engineer** September 2021 to February 2022

- Authored the revamped Twilio's Cloud Security Policy to incorporate Multi-Account strategy, Kubernetes, Infrastructure as Code(IaC), and compliance-driven requirements(HITRUST, PCI, HIPPA).
- Drove the SPIFFE/SPIRE initiative & Open Policy Agent(OPA) adoption as Cloudsec anchor, conducting architectural reviews and threat modeling for Service Mesh PKI.
- Performed security architecture reviews on IAM, Networking, Storage, and Encryption.

**Senior Cloud Security Engineer** April 2020 to September 2021

- Developed AWS Organization OU management and SCP deployment via Terraform.
- Migrated all production bastion SSH access from X.509 certificate to Yubikey One-Time-Password(OTP).
- Deployed the automation framework for cloud vulnerability management initiative.
- Built out AWS new account security onboarding automation via AWS StackSets.

**Cloud Security Engineer** August 2018 to April 2020

- Automated detection and remediation with Step functions, Lambdas, and DynamoDB.
- Performed threat modeling, incident response, and least-privileged analysis.
- Managed bastion network and Twilio's public key infrastructure(PKI) for production access.

# Kilter, Inc (acquired by Blackbaud)

**Co-founder & CTO** June 2016 to January 2019

- Directed technology decisions and oversaw the development of React Native mobile and web apps.
- Designed and developed native AWS cloud infrastructure with services running Golang APIs, PHP, Python, Angular5 website, and CI/CD pipeline.
- Interfaced with partners and large clients and facilitated customers' adoptions.
- Managed a full-stack engineering team of 5 and prioritized feature requests and workstreams.

## Industrial Refrigeration Consortium

**Lead Software Engineer** April 2016 to February 2017

- Refactored legacy PHP codebase and managed MySQL database and the web server.
- Redesigned internal management system with Bootstrap and jQuery.
- Developed and maintained all IRC and HVAC&R Center websites and databases.

## UW-Madison IoT Systems Research Center

**Researcher** September 2015 to September 2016

- Designed hardware interfaces with Arduino YUN to provide activity analytics for gyms.
- Implemented integration of Amazon Echo and Slack with AWS Lambda and webhooks.

## Certifications

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- Certified Information Systems Security Professional(CISSP)
- AWS Certified Security - Specialty
- AWS Solutions Architect - Associate
- AWS Certified Developer - Associate
- GIAC Security Essentials Certification(GSEC)
- AWS Cloud Practitioner

## Blogs

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Alert & Remediate AWS Cloud Misconfigurations with Step Functions

- <https://xiaoh.net/thoughts/aws/2020/11/03/Vuln-Life-Cycle.html>

Time-based Control for IAM

- <https://xiaoh.net/thoughts/aws/2021/04/19/Time-based-IAM.html>

Terraform Monitoring to Your AWS Organization SCP

- <https://xiaoh.net/thoughts/aws/2021/05/20/Monitor-AWS-SCP.html>

## Technologies

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AWS  
Apache  
AngularJS  
Burp Suite  
Docker  
Metasploit  
Nmap  
Nginx  
Node.js  
React  
React Native  
Terraform

## Languages

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Python (Proficient)  
Golang (Proficient)  
PHP (Proficient)  
MySQL (Familiar)  
JavaScript (Familiar)