

Kunal Joshi

Cloud Security Engineer, Cloud Developer, Identity and Cryptography
Subject Matter Expert

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SKILLS

Development

Java, Python, C#, Web development

Identity and Access Management

OAuth, SAML, AWS Identity And Access Management.

Cryptography

AWS Key Management Service, Hardware Security Modules(HSM),
PKCS#11, JCE, OpenSSL Dyn. Encryption SDK.

Others

Penetration Testing, Privilege Escalation, Application Layer
network design, Protection against DDoS, Protection against
Owasp top 10 Web Application security risks.



EXPERIENCE

Amazon Web Services, Bangalore — Cloud Engineer II – Security

December 2017 - PRESENT

Cloud Security

- Responsible for handling escalations/issues with Security Domain AWS services such as IAM, KMS, CloudTrail, CloudHSM, Shield/DDoS, Cognito, Single-Sign On, GuardDuty, Inspector, AWS Organizations, Certificate Manager etc.
- Responsible for developing internal training material for services such as Single Sign On, Secrets Manager.

Subject Matter Expert - Identity and Access Management

- Subject matter expert in AWS IAM service, and concepts including Federation, SAML, Single-Sign On.
- Responsible for training internal engineers as well as developing a complete training curriculum.
- Published public knowledge center articles such as - <https://aws.amazon.com/premiumsupport/knowledge-center/iam-tag-based-restriction-policies/>

AWS Single Sign On - Application Catalog team

- Contributed to onboarding 60+ applications to production for [AWS Single Sign On - Cloud Application catalog](#).

ACHIEVEMENTS

- ACM ICPC 2016-Kolkata finals Rank 58.
- Qualified - Google code jam 2017-2018
- #2223 - Round 1 Code Jam 2017
- AIR 98 - Tata Codevita 2016

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- Involved working with Major Cloud Application providers such as Salesforce, Asana, Aha, Zocalo, Cisco etc.
- Responsible for researching and creating a SAML application model to allow SSO to generate SAML assertion compatible with specific providers.
- Also authored public documentation for all the applications onboarded.

AWS SDK Operations

- Part of AWS SDK Operations team.
- Responsible for troubleshooting and debugging issues related to All AWS SDKs.
- Worked on AWS SDKs in multiple languages, including python, Java, C++, C#, JavaScript, Ruby, Go, PHP.
- Managed other AWS tools including AWS CLI, AWS CDK, AWS encryption SDK.

Subject Matter Expert - Cryptography

- Subject Matter Expert in Cryptography services - AWS KMS and AWS CloudHSM.
- Works on escalations related to AWS KMS and CloudHSM issues.
- involves working on CloudHSM client using interfaces such as Java JCE, PKCS#11, OpenSSL Dyn.

Development - Support Tooling Program

- Contributed to development of support tools for AWS Services.
- Involved development on internal Javascript frameworks and React.js

OPEN SOURCE PROJECTS

SpotLightPy - PyPI

- An Open Source Python Package (MIT License) published at Python Packaging Index (PyPI) to extract resource images from the Microsoft Spotlight Project for Windows X.
- Developed using Python 3.5
- Uses **Python Imaging Library (PIL)** to decrypt cached Images.
- **600+ downloads** by the global python community.
- Git: <https://github.com/joshikunal94/spotlightpy>
- Python Packaging Index: <https://pypi.python.org/pypi/spotlightpy>

EDUCATION

College Of Technology And Engineering, Udaipur — B.Tech Computer Science

2013 - 2017

Completed B.Tech from College Of Technology And Engineering, Udaipur with **O.G.P.A (Overall Grade Point) 7.98** with S.G.P.A of **8.49** in final semester.

Maharana Mewar Public School, Udaipur — Class XII

2012

CBSE class XII, with **92.0%**.