# Kunal Joshi

Cloud Security Engineer, Cloud Developer, Identity and Cryptography Subject Matter Expert **(**+91) 9602201321

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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 –
  <a href="https://aws.amazon.com/premiumsupport/knowledge-center/">https://aws.amazon.com/premiumsupport/knowledge-center/</a>
  <a href="mailto:iam-tag-based-restriction-policies/">iam-tag-based-restriction-policies/</a>

# **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/joshikuna l94/spotlightpy
- Python Packaging Index: https://pypi.python.org/pypi/spo tlightpy

#### **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

Completed class XII examination of Central Board Of Secondary Education (CBSE) with 92.0%.

# St. Paul's School, Pratapgarh — Class X

2010

Completed class X examination of Central Board Of Secondary Education (CBSE) with 9.6/10 CGPA.