




# Sivaramakrishnan KN

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## WORK EXPERIENCE

**Oracle** **Bangalore, India**  
*Member of Technical Staff | Identity and Access Management* *Jul 2021 — Present*

- **Desktop SSO** - Designed tables and data access layer APIs for implementing Desktop Authenticated SSO in windows devices
- **Access Governance** - Developed multiple REST based micro-services for a cloud based Access Governance solution
- Transformed abstract requirements into a consolidated structure and designed the foundational logic for the provisioning module
- Managed integration testing and deployment of services during the staging and pre-production phase
- **Oracle Adaptive Risk Management** - Designed a HTTP servlet filter to intercept and analyse the risk of authentication requests
- Built a standalone POC to re-authenticate requests based on risk factors such as location, timestamp and IP address

*Software Developer | Internship*

*May 2020 — Jun 2020*

- **Access Management** - Implemented two-legged and three-legged authentication flows using OAuth 2.0 for the Facebook connector
- Performed load testing using JMeter to evaluate the performance difference between the two flows

**North Eastern Space Application Center - ISRO**

**Umiam, India**

*Software Developer | Internship*

*May 2019 — Jul 2019*

- Created a cloud based web platform for running Geo-Spatial applications via python notebooks using Django
- Used **OpenDataCube** to analyse and ingest remote sensing data obtained from satellites such as Landsat-8 and Sentinel-2

## EDUCATION

**Birla Institute of Technology and Science, Pilani**

**Hyderabad, India**

*B.E in Computer Science and Engineering; First Division, GPA: 8.34/10.0*

*Aug 2017 — May 2021*

## PROJECTS

**Multi-Modal DeepFake Detection using Spatial and Frequency Domain Analysis**

**Monash University, Melbourne (Remote)**

*Undergraduate Thesis*

*Dec 2020 — May 2021*

- Aimed to improve the accuracy of DeepFake detection in video datasets (DFDC, FaceForensics++) using spectral analysis.
- Pre-processed the data by extracting facial features, such as the eye, and lip region, and transformed it using FFT
- Trained a CNN classifier on the multi-modal data and improved the DeepFake detection accuracy to 98.9%

**Clustering Pollution Sources for India using Remote Sensing Data**

**BITS Pilani, Hyderabad**

*Undergraduate Research Assistant*

*Jan 2020 — Dec 2020*

- Ingested, processed and analysed remote sensing pollution data obtained from Sentinel-5P satellite using the GDAL library
- Performed unsupervised clustering using Keras to identify groups of districts/states which had similar pollution signatures
- Found strong correlations linking pollutants with socio-economic factors such as population, mining and manufacturing industries

## PUBLICATIONS

1. **Sivaramakrishnan, K., Deka, L. & Gupta, M.** in *Geo-intelligence for Sustainable Development* 109–125 (Springer, 2021).  
[https://doi.org/10.1007/978-981-16-4768-0\\_8](https://doi.org/10.1007/978-981-16-4768-0_8).

## SKILLS AND CERTIFICATIONS

**Languages** Java, Python, C++, JavaScript, HTML, PL/SQL

**Frameworks and Tools** Oracle Cloud Infrastructure, Kubernetes, Docker, Kafka, Flink, Maven, Git, Autonomous DB (ATP), Postman, Helidon, JMeter, JAX-RS, JPA (EclipseLink, Hibernate), Django, TensorFlow, Keras

**Certifications** Oracle Cloud Infrastructure 2022 Certified Foundations Associate

## ACHIEVEMENTS

**Oracle Covid Hack - Runner Up**

**Jun 2020**

Developed a system to safely and securely manage queues for essential services during the Covid19 pandemic

**InnoHack 6.0 - Runner Up**

**Feb 2020**

Created an unsupervised classification model to detect faults in heavy machinery by using audio signals

## VOLUNTEER EXPERIENCE

**Project Leader, Oracle Volunteering**

**Jan 2022**

*Socio-emotional learning based Journaling Workshop* - Conducted a workshop for underprivileged children of Project RISE with AROH Foundation to create awareness on the importance of mental health and how journaling can help processing one's feelings