

# KARTHIKEYAN SADAYAMUTHU

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Software engineer with extensive experience in building highly scalable, cost-optimized, and resilient applications in the cloud. I am passionate about problem-solving, continuous learning, mentoring, and building applications that deliver a great customer experience.

## EXPERIENCE

**MAY 2022 – TILL DATE**

**ASHBURN, VA**

**PRINCIPAL SOFTWARE ENGINEER, AUTODESK**

***TRUST ENGINEERING PLATFORM***

Trust Platform is in-house application delivering seamless security capabilities for our engineering partners and its customers.

- Designed and implemented Trust Engineering Platform, ensuring Autodesk products and applications established 15 security non-negotiables, which serve as the minimum set of security and privacy requirements for all Autodesk software and infrastructure.
- Implemented Azure Active Directory (Azure AD) Role-Based Access Control (RBAC) Authorization model and facilitating the onboarding of consumers to both Commercial and FedRamp Environments.
- Built Trust Dashboard UI provides an overview of the trust state for all onboarded applications and services. Incorporating metrics such as Availability, Uptime, MTTR, and RTO/RPO
- Built Security Dashboard UI is used to measure how applications are performing with respect to the Security and Privacy Non-Negotiables at Autodesk.
- Lead engineer in a Trust Engineering Platform - Autodesk has established 15 security non-negotiables, which serve as the minimum set of security and privacy requirements for all Autodesk software and infrastructure.
- Partnered with product and customer-facing platform teams to provide, deploy, and help adopt security and privacy tooling and automations to protect customer IP and sensitive data.
- Led cross-functional teams in the integration of all the various data sources for Security and the establishment of relationships between the data sources like NIST, Divvy, Orca, Synk, Twistlock, Qualys, CrowdStrike, Burpsuite and Snow.
- Collaborated with product managers to enhance the platform's capabilities, addressing evolving trust engineering requirements and user expectations.
- Built a robust observability and alerting mechanism using Amazon CloudWatch Synthetics to monitor production system effectively.

## **PRIVACY PROGRAM – CONSENT & PREMISSION PLATFORM**

C&P platform ensure Autodesk obtains consent to process personal data where it's required and honors individual preferences and permissions.

- Designed and implemented a robust Consent and Permission Platform, ensuring compliance with GDPR, CCPA, and other data protection regulations.
- Collaborated with legal and compliance teams to ensure the platform's alignment with evolving data privacy laws and regulations.
- Led cross-functional teams in the integration of consent and permission management features into various applications and services.
- Engineered a Consent Management System, streamlining the collection, storage, and retrieval of user consents across multiple channels between Autodesk, Salesforce Adobe Marketo, and Alida using Fivetran, Apache Airflow Dags running on managed on-prem infrastructure and snowflakes data lake and AWS S3 for data translation and AWS Eventbridge to distribute to customer preferences events.
- Responsible for onboarding Internal Autodesk consumers and third-party consumer Salesforce and Adobe Marketo to improve their operational efficiency and marketing campaign.
- Implemented automated processes for consent auditing and reporting, reducing manual efforts.
- Collaborated with product managers to enhance the platform's capabilities, addressing evolving privacy requirements and user expectations.

**NOV 2021 – MAY 2022**

**STERLING, VA**

### **SOFTWARE DEVELOPMENT ENGINEER 4, COMCAST**

Solution Architect leading the application architectural decisions for Xfinity buy flow domain. Advising the system and infrastructure configuration from application performance, scalability, and capacity perspective.

- Advise business owners, and IT groups regarding Comcast architecture guidelines.
- Built a robust framework and security guidelines for public cloud and on-prem infrastructure.
- Present and communicate the solution architecture to technical and non-technical partners and demonstrate how solution design will enable business needs.
- Ensure solution architecture aligns with business objectives, roadmaps, and strategic solutions, as well as to Comcast architecture principles and standards.
- Define application and technical patterns, architecture project work, including architecture patterns, decisions, and rationale for those decisions and architecture solution.
- Building microservices based large-scale data platforms on public cloud and on-prem with event-driven systems, and distributed systems.
- Using terraform framework to containerize the application and ship the products to multi cloud platform.

**MAY 2018 – NOV 2021**

**STERLING, VA**

**SOFTWARE DEVELOPMENT ENGINEER 4, COMCAST**

Architect led the application architectural decisions and product delivery. Collaborate with business partners and product owners to re-imagines the critical functions by defining the technical direction and technology strategy to fulfill the business needs in a rapid fashion.

- Built AWS Serverless based APIs powered by Python, Java
- Built REST based microservices powered by Flask - Python, Spring Boot - Java
- Built On-Demand ETL Batch jobs using Python deployed in AWS ECS clusters – Fargate.
- Responsible for onboarding consumer to the Platform
- Defined and implemented observability requirements for the product using Elastic stack.
- Championed the improvements in production support processes across all the digital teams within our sub-organization.
- Built a monitoring & alerting platform leveraging ELK and Slack/Teams hooks to proactively identify & resolve support prod incidents.
- Built a robust CI/CD pipeline using Concourse & Terraform and Serverless Framework.
- Managing small group of developers, quality assurance and support team.

**MAY 2016 – MAY 2018**

**STERLING, VA**

**SOFTWARE DEVELOPMENT ENGINEER 3, COMCAST**

- Architected & implemented several web and cloud native applications in cloud foundry platform.
- Transformed legacy SOA based web services in Comcast’s order management space into cloud native microservices & built new microservices powered by Spring Boot & Netflix OSS libraries, Couchbase, Redis, & GoCD deployed in Pivotal Cloud Foundry.
- Built logging as a service deployed on Pivotal Cloud Foundry that persists data into Elasticsearch & Oracle by streaming the logs using Kafka / RabbitMQ.
- Monitored applications deployed in production using AppDynamics, Kibana Dashboard, CF Logs and audits logs persisted in Elasticsearch.
- Technical architect responsible for driving enhancements in Comcast’s legacy order management space.
- Captured business requirements from program teams / business teams & converted them into technical specification documents by driving JAD sessions across impacted teams.

**NOV 2011 – MAY 2016**

**IT ANALYST, TATA CONSULTANCY SERVICES**

**SEP 2010 – OCT 2011**

**APPLICATION DEVELOPER, BYN MELLON**

**FEB 2009 – SPE 2010**

**SOFTWARE ENGINEER, SYBRANT TECHNOLOGIES**

**EDUCATION**

**2008 MAY**

**BACHELOR OF ENGINEERING, (Information Technology) ANNAMALAI UNIVERSITY**