# GOWTHAM NIMMANA
## Senior Software Engineer

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## SKILLLS

- **Programming Languages:** Java / J2EE, Dart, JavaScript, Python
- **Frameworks / Libraries:** Spring Framework / Spring Boot, Flutter, Angular, Hibernate
- **System Design & Solution Architecture**
- **Database**: Oracle, PostgreSQL, MongoDB, DynamoDB
- **Architecture patterns**: Service Oriented Architecture (SOA), Microservices
- **Cloud Computing / Cloud Native architecture:** Amazon Web Services, Cloud Foundry, Docker, Kubernetes (Amazon EKS), Docker Swarm, Serverless Compute (AWS Lambda)
- **API Management & Documentation:** AWS API Gateway, Tibco Mashery, Apigee, OpenAPI (Swagger)
- **Identity & Access Management:** Amazon Cognito
- **Single Sign-on (SSO):** OpenID Connect (OIDC), SAML 2.0, Central Authentication Service (CAS)
- **Event Stream Processing:** Apache Kafka, Amazon SQS, Amazon SNS, Amazon Event Bridge
- **Continuous Integration and Continuous Delivery (CI/CD):** Git, maven, Jenkins, AWS CloudFormation, AWS CodePipeline, Terraform,
- **Monitoring & Alerting:** Elastic Stack, Grafana, Amazon CloudWatch, Prometheus
- **Testing:** Junit, TDD, Cucumber (BDD)
- **Software development methodologies:** Scrum, Scaled Agile Framework, Spotify Model

## CERTIFICATIONS

- AWS Certified Solutions Architect - Professional
- AWS Certified DevOps Engineer – Professional
- Oracle Certified Professional, Java EE 5 Web Component Developer
- Oracle Certified Professional, Java SE 6 Programmer
- Professional Scrum Master I (PSM I) by scrum.org

## TRAININGS

- Tibco Mashery - API Integration / Management
- Kubernetes Administration by The Linux Foundation

## EDUCATION

- Bachelor of Technology - Computer Science and Engineering, Andhra University, India.

## EXPERIENCE SUMMARY

- Dedicated and seasoned Senior Software Engineer with over 12 years of expertise in designing, developing, and maintaining robust and scalable software solutions.

- Highly proficient in Java programming with extensive hands-on experience in JAVA/J2EE development technologies.

- Specialized in developing high-performance APIs, latency-sensitive applications, web services utilizing REST and SOAP protocols with expertise in the Spring framework, Spring Boot, and other modules for building efficient and scalable enterprise applications.

- Holds extensive expertise in system design and architecting enterprise-level solutions on Amazon Web Services (AWS) leveraging services such as EC2, API Gateway, Lambda, Cognito, S3, and CloudFront, Route53, SQS, SNS.

- Strong hands-on experience in designing, building and integrating Single Sign-On (SSO) solutions and integrating identity and access management (IAM) systems such as Amazon Cognito using industry-standard protocols like SAML 2.0 and OpenID Connect (OIDC).

- Experienced in designing scalable, resilient, and cost-effective systems by leveraging architectural patterns like microservices, serverless compute, cloud native and event-driven approaches to meet diverse business needs.

- Highly proficient in building cloud-native applications using Docker for containerization and advanced orchestration tools like Kubernetes (EKS) for deployment.

- Experienced in implementing DevOps methodologies and tools, including CI/CD pipelines, configuration management, and automated infrastructure provisioning (AWS CloudFormation, Terraform).

- Proficient in implementing monitoring and logging solutions for applications and infrastructure, ensuring comprehensive visibility into system performance and health.

- Holds extensive hands-on expertise in API management platforms such as Apigee and Mashery, adept at designing, securing, and managing APIs to enable secure and controlled access to backend services.

- Proficient in web application development (JavaScript, Angular) and hybrid mobile app development (Flutter), excelling in crafting cross-platform solutions for seamless user experiences across Android and iOS devices.

- Experienced in database systems and design, with proficiency in both SQL (e.g., Oracle, PostgreSQL) and NoSQL (e.g., MongoDB, DynamoDB) technologies.

- Proven track record in knowledge sharing, guidance, providing mentorship, direction, and support to team members to foster productivity and professional growth.

# WORK EXPERIENCE

## KPN B.V. (April'2019 - Present), Netherlands

### Project Title: MonteurApp

**Role:** Senior Software Engineer

**Period**: June'2020 – Present

**Description**: The aim of the project is to build a highly secure mobile app for KPN mechanics and field technicians to support and automate the fulfillment and installation of KPN wholesale and retail services. This mobile app, available on both Android (mobile and tablet versions) and iOS platforms, is used by technicians from both KPN and wholesale companies. The app significantly contributes to KPN's vision of migrating from a legacy copper network to fiber optics across the Netherlands. It provides technicians with access to KPN technical sites, security buildings, and telecom network locations. Additionally, the app automates various diagnostic actions and line measurements, aiding technicians in troubleshooting line quality issues. There are also numerous functionalities specifically developed for the wholesale organization to support the installation of their services on the KPN network.

**Highlights**:
- MonteurApp is developed with latest hybrid Mobile framework Flutter, which enables single code can be used to build and release the app in multiple platforms such as Android, IOS and Desktop etc.
- Backend Rest APIs are developed as micro services using AWS Lambda serverless technologies.
- WebSocket APIs are developed for some of the long running heavy workload jobs using Amazon SNS and SQS.
- Some of the latency sensitive backends are migrated as docker containers and deployed to Kubernetes (EKS)
- Integrated enterprise-wide Single Sign-on solution using AWS Cognito with OpenID Connect Authorization Code Flow to support multi-tenant authentication and authorization for KPN retail and wholesale company users.
- All backend APIs are protected with AWS IAM authorization and authorizations are granted based on role-based access control (RBAC) model.

**Responsibilities**:
- As a Certified AWS Solution Architect, I designed the initial draft proposal for the app's architecture.
- Considering the app's complex security requirements, I designed and developed the entire authentication and authorization setup using AWS Cognito to support KPN's Single Sign-On feature for users.
- As part of the development team, I am responsible for designing and developing new features for the mobile application, ensuring availability on both Android (mobile and tablet) and iOS platforms.
- As a Senior Developer in the team, I conduct peer code reviews of every pull request created in the team to make sure the quality, security and performance should be the main criteria and release new features in every sprint cycle, utilizing an automated CI/CD release process.
- I present the developed features to beta testers, gather feedback, and implement further enhancements and bug fixes.

**Backend Technologies:** Java11/17, AWS Serverless Lambda functions, Apache Kafka, Docker, Rest APIs, WebSocket APIs, Kubernetes (Amazon EKS), Amazon SNS, Amazon SQS

**Security:** AWS IAM, Amazon Cognito, OIDC, SAML 2.0

**Mobile Platform Technologies:** Flutter, Dart, Google Firebase

**Databases:** Amazon DynamoDB

**CI/CD:** Git, Jenkins, AWS CloudFormation, Artifactory

**Monitoring**: Elastic Stack, Grafana, Amazon CloudWatch, Prometheus

**AWS Services:** API Gateway, Lambda, EC2, Cognito, S3, CloudFront, Route53, EKS etc.

## Project Title: TOA Apps

**Role:**          Senior Software Engineer

**Period**:          April'2019 – Present

**Description**:          TOA apps consist of three different mobile applications used internally by KPN field technicians. These apps are essential for checking the connection information of each address where the KPN network is provisioned. The connection information includes network topology, location details, and other technical specifications necessary for technicians to provision or diagnose the network. In addition to network diagnostics, these apps are also used to report problems and irregularities at KPN technical sites. They provide information related to provisioned KPN retail services such as Internet, VOIP, and iTV at customer addresses or connections.

**Highlights**:
- All these apps are developed using native Android and IOS platforms. Kotlin is used for Android app development, Swift is used for IOS development.
- Developed inhouse Identity and Access Management application using Central Authentication Service (Cas) to also support single sign-on across multiple other applications within the organization.

**Responsibilities:**
- As a Senior Developer, I migrated some of the complex backend applications into new technical stack from scratch.
- Introduced Spring Boot in the team, Migrated APIs running with old spring framework in tomcat to latest Spring Boot version.
- Mentoring other team members and conduct regular technical sessions to encourage continuous learning and growth within the team
- As part of the development team, responsible for the design, development and maintenance of the applications.
- Responsible for regular release of the apps to playstore and AppStore and request early feedback to improve customer experience.

**Backend Technologies**:          Java11, Kotlin, Swift, Spring Boot, SOAP Web Services, Restful Webservices, Apache CFX
**Mobile Platform Technologies:**          Android, IOS
**Frontend Technologies:**          JavaScript, Apache Wicket, Angular
**Databases:**          Oracle
**CI/CD:**          Git, Jenkins, Artifactory,
**Application Server**          Tomcat
**Monitoring**:          Elastic Stack, Grafana, Amazon CloudWatch, Prometheus

### HCL Technologies Ltd (Nov'2017 – April'2019)

**Customer:**          ING Bank, Netherlands.

## Project Title:  CaRe (Cash Reconciliation), Role: Full Stack Java Developer

**Role:**          Senior Software Engineer

**Period:**          Nov'2017 – April'2019.

**Description:**          CaRe application is developed for ING finance department to explain and investigate every difference in ING cash machines in and out of the cash flow. This application also used in settlements with other bank in external cash settlements. This is one of the complex and long running application which is responsible to ensure accurate and high performance.

**Responsibilities:**
- Responsible for building the reconciliation framework in java to explain the differences in cash flow in ING cash machines.
- Responsible for integrating the application with other external systems using Apache Camel with Tibco EMS and web services to collect the data from various sources.
- Responsible for building a UI application in Polymer as per ING specifications and standards to investigate a specific transaction to explain the difference in ING cash machines.
- Responsible for deploying and release new version once in two weeks (end of every sprint) and keep operations in control.

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| **Technologies:** | Java, Restful web Services, Spring Framework, Hibernate ORM, Apache Camel, Maven |
| **Database:** | Oracle 11g |
| **Frontend Technology Stack:** | HTML5, CSS3, JavaScript, Polymer |
| **CI/CD:** | Git, Jenkins, Nolio |
| **Web Server:** | Tomcat8 |

**Tata Consultancy Services Ltd (June'2012 – Nov'2017)**

**Customer:** KLM Royal Dutch Airlines, Amsterdam, Netherlands.

## Project Title: AMT - Service Center Integration (SOA/API)

**Role**: Senior Full Stack Developer

**Period**: Feb'2016 to Nov'2017

**Description:** Develop, configure and publish the AIRFRANCE-KLM APIs in Mashery SAAS - Cloud Integration platform. Applications built from scratch as part of the project to automate the process of configuring, publishing and documenting APIs in Mashery.

**Applications & Responsibilities:**

- Custom Deployment Plugin
  - Built new custom plugin on top of XLDeploy (AFKL Deployment platform), this plugin automates the process of configuring APIs in Mashery using Mashery Rest APIs.
- AMT-PUB Rest Service and Admin Console Application
  - Built new Interface (Rest Service) and Admin Console (UI application) to enable self-service to the Teams to publish the API Documentation (Swagger/IODocs) to Mashery Developer Portal.
- AIRFRANCE KLM - Mashery Developer Portal
  - Responsible for customizing the UI of the default Portal into AIRFRANCE KLM UI guidelines.
  - Responsible for the content management, Documentation of APIs.
  - Currently redesigning this portal into Rich User Experience Responsive site.
- Responsible for Support, maintenance activities and Continuous improvement of the above applications.

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| **Technologies**: | Java8, Go Lang, Restful web Services, OAuth 2.0, Spring Boot, Spring Data Rest, Spring Batch, Mongo DB, Mashery SAAS, Maven |
| **Frontend Technology Stack:** | HTML5, CSS3, JavaScript, Angular JS 1. *, Bootstrap, jQuery |
| **CI/CD:** | Git, Bamboo, Cloud Foundry |
| **Web Server:** | Tomcat7 |

## Project Title: AIRFRANCE KLM - SOA Development Framework

**Role:** Senior Full Stack Developer

**Period:** Feb'2016 to Nov'2017.

**Description:** SDFW, or the SOA Development Framework, is the standard AIRFRANCE KLM web services stack. This Framework is the way to go when implementing/Consuming web services. This framework built on top of the open source JAX-WS RI web services stack implementing the JAX-WS API with interaction patterns. i.e. Synchronous Request-Reply (SOAP/HTTP transport) pattern and Event reporting- one way (SOAP/JMS transport) pattern.

**Responsibilities:**

- As a Senior Developer in the team, Responsible for developing, supporting and maintenance of the framework.
- Effective delegation and tracking of development activities using JIRA
- Responsible for providing support and assistance to internal development teams to use the framework effectively without any issues.

**Technologies:**          Java, JAX-WS RI, SOAP/HTTP, SOAP/JMS, Maven
**CI/CD:**          Git, Bamboo
**Web Server:**          Tomcat7

## Project Title: AIRFRANCE-KLM - Tomcat Migration

**Role**:          Senior Full Stack Developer

**Period:**          Aug'2015 to Feb'2016

**Description:**          The main goal of the project is to migrate all AIRFRANCE-KLM Legacy J2EE web, batch applications to JAS-Tomcat Deployable. Migrated 20+ applications from IBM WAS/JBOSS environment platform to JAS-Tomcat environment.

**Responsibilities:**

- Responsible for development and deployment activities of the application.
- Responsible for facilitating the development team decisions and removing the impediments.
- Effective delegation and tracking of development activities using JIRA.
- Responsible for reviewing the code using Stash/Crucible and maintaining KLM Quality Standards on SONAR.

**Technologies:**          Java8, Spring Boot, JAX-WS RI, SOAP/HTTP, SOAP/JMS, Maven
**Frontend Technology Stack:**          HTML5, CSS3, JavaScript, jQuery, Tiles
**CI/CD:**          Git, Bamboo
**Web Server:**          Tomcat 7

## Project Title: KLM – E-Complaints Redesign

**Role**:          Senior Full Stack Developer

**Period:**          June'2015 to Aug'2015

**Description:**          E-Complaints application enables the customer to submit complaints or compliments regarding a trip. The redesign project developed a new UI and upgraded the technical stack of the application.

**Role & Responsibilities**:

- Responsible for development and deployment activities of application.
- Effective delegation and tracking of development activities using JIRA.
- Responsible for reviewing the code using Stash/Crucible and maintaining KLM Quality Standards on SONAR.

**Technology:**          Java, Spring Boot, Spring Framework, Web services, jQuery, JavaScript
**Tools:**          Spring Tool Suite, Soap UI, XLDeploy
**CI/CD:**          Git, Bamboo
**Web Server:**          Tomcat 7

## Project Title: KLM – Flight Selection Tool

**Role**:                          Senior Full Stack Developer

**Period:**                        Jan'2015 to Jun'2015

**Description:**              Flight Selection Tool is a KLM internal application developed to run simulations on flight cancellations.

**Responsibilities**:

- Responsible for design and developing the application as per the business requirements.
- Continuous release and deployment activities of the UAT defects.
- Effective delegation and tracking of development activities using JIRA.
- Responsible for reviewing the code using Stash/Crucible and maintaining KLM Quality Standards on SONAR.

**Technology:**                          Java8, Spring Boot, Spring Framework, Web sockets, JPA
**Frontend Technology Stack:**           HTML5, CSS3, JavaScript, Angular JS 1. *, Bootstrap, jQuery
**Continuous Integration:**              Bamboo
**Web Server:**                          Tomcat 7

## Project Title:  KLM – Speed and Ergonomics

**Role**:                          Java Developer

**Period:**                        Jun'2014 to Jan'2015

**Description:**              Speed and Ergonomics is a project to improve performance and efficiency of legacy Liferay Cargo Portal. The Portal supports passengers to get rates and flight schedule results for a particular itinerary with different products and dimensions. This Cargo Portal is for Cargo employees of KLM and Air France. It exists of a Business-to-Business part and a Business-to-Employee part with the integration of the various Liferay portlets.

**Responsibilities**:

- Responsible for planning, design, development, and deployment activities
- Responsible for reviewing the code using Stash and maintaining KLM Quality Standards on SONAR,
- Responsible for providing solutions for technical and performance issues
- Responsible for quality of the development and ensuring the delivered solution meets the technical specifications.

**Technologies:**              Java 5/6, Liferay 6.1, Spring Framework, hibernate, JavaScript, Maven
**Tools:**                     Liferay Developer Studio, XLDeploy
**CI/CD:**                     Git, Bamboo
**Application Server:**        JBoss 5

## Project Title:  KLM - Various Clusters

**Role**:                          Java Developer

**Period:**                        Oct'2012 to June'2014

**Description:**              The Various cluster Project is a combination of applications, which somehow do not fit in the other clusters. There are more than 20 applications are part of this cluster from various domains such as Passenger Operation, Cargo, Commercial, Altea DC.

**Role & Responsibilities**:

- Responsible for development, support and maintenance activities of of the application in the cluster

- Involved in preparing impact analysis and solution proposal documents for the CR's raised.

- Responsible for reviewing the code using Stash and maintaining KLM Quality Standards on SONAR.

**Technologies:**              Java 5/6, Spring Framework, hibernate, JPA, PL/SQL, Oracle10g, JavaScript, Maven
**CI/CD:**                     Git, Bamboo
**Web Server:**                WAS(WebSphere) 6.1, Jboss 4.5

## ACHIEVEMENTS AND RECOGNITION

- Champions in multiple categories in Dutch Open Hackathon 2015 conducted in Amsterdam.
- Received "Technical Excellence" award for the continuous improvement with innovative solutions to development and maintenance projects in team.
- Received "On the Spot" award for solving performance issues in application on time and for giving extensive support to team and project.
- Received "Best Team" award to our first Agile (scrum) development team for highly productive and with developers from three locations India, Netherlands, and France work in a very collaborative environment to deliver things quickly.

## KNOWLEDGE SHARING & CONTRIBUTIONS

- I really like contributing to GitHub open-source community, I contributed to some of the Java SDK libraries for Tibco Mashery API.
- I did couple of bootcamp sessions with other teams within the organization and arranged knowledge sharing session at KPN regarding single sign-on integration with Amazon Cognito.
- Contributed to AWS Deep race Event organized at KPN.

## PERSONAL DETAILS

- Full Name:          GOWTHAM NIMMANA
- Gender:               Male
- Date of Birth:      01-July-1991
- Nationality:         Dutch
- Languages Known:
  - English - Full Professional Proficiency
  - Telugu - Native Proficiency (Mother tongue)
  - Hindi - Native Proficiency
  - Dutch – Elementary Proficiency (Level A2)