NITESH APTE

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OBJECTIVE

Solution Architect with **17 years of experience** in designing and developing scalable, high-performance, distributed systems. Passionate about coding and committed to delivering high-quality solutions. Eager to contribute my skills and experience to drive innovation and success either as an Individual contributor or team player. Currently pursuing AI/ML initiatives independently to further enhance my technical capabilities.

PROFESSIONAL SUMMARY

- Currenlty working as Solution, Data and Technical Architect for client Xone Communication, Johannesburg, South Africa**.**
- Over 10 years of experience in architecture design, distributed systems, data modeling, microservices, and enterprise solutions.
- Skilled in requirement analysis, system design, estimations, proposal creation, risk mitigation, documentation, and stakeholder management.
- Proven ability to lead, mentor, and collaborate across global teams while delivering high-quality solutions.
- Hands-on AI/ML development through independent initiatives, including model training, LLM experimentation, and building AI-enabled solutions
- **E**xtensive experience in **Architecture Design**, **Distributed System Design, Data Modelling (Conceptual, Logical and Physical Data Modelling)**, **OOAD**, **UML**, **Microservices, Java**, **J2EE**, **Spring Boot**, **Spring Boot WebFlux (Reactive), Spring AI, AI/ML (TensorFlow, PyTorch, OpenAI, Ollama, Llama3, LangChain, Flask), Reactive Programming, Functional Programming, Spring Security, OAuth 2.0 server & client, Spring REST, Spring MVC**, **Scala**, **Gosu**, **Guidewire**, **Cassandra**, **Azure Edge Hub, Apache Spark**, **Docker**, **Kubernetes**, **Apache Kafka**, **Akka, PHP**, **Python, C**, **SOA**, **PaaS**, **SaaS**, Sturts2, Symfony, Zend, ARM 9, OMap 3, **Hibernate**, Servlet, Web Services, WSDL, **SOAP**, **RESTful**, DWR, Axis2, Apache Camel, **OSGI**, **Karaf**, JSP, **Oracle**, **MySQL**, Jasper, iReport, **XML**, WebLogic, Tomcat, **MVC**, Real Time Streaming Protocol (RTSP), Magento, WordPress, **cURL**, **Ajax**, JQuery, **JSON**, JavaScript, HTML, Web 2.0, **N-Tier Architecture**(3-Tier, 4-Tier).
- Good knowledge of **SOA, PaaS, SaaS** and **BPEL.**
- Excellent concept of **OOPs and Object Oriented Analysis and Design (OOAD).**
- Active participation in application's requirement analysis, design and implementation, integration and providing deliverables for the testing aka all the stages of **System Development Life Cycle (SDLC)** involving all stakeholders**.**
- Create, review and present proposals to management and clients.

CERTIFICATIONS

- TOGAF 10 Enterprise Architecture Foundation (Udemy)
- Generative AI – Beginner to Leader (Udemy)

KEY SKILLS

Domain
Internet of Things (IoT), Insurance, Telecom, Digital Signage / Advertising, Home automation, E-commerce, Finance, Healthcare, Social Network

Architecture & Design
Solution Architecture, Data Architecture, Technical Architecture, Distributed Systems, UML, OOAD, Microservices, API Design, Integration Architecture, RESTful, SaaS, PaaS

AI / Machine Learning
AI-enabled Solutions, Spring AI, TensorFlow, Keras, PyTorch, Pandas, NumPy, OpenAI, RAG, LangChain, Llama3, Ollama, Llama.cpp, Flask, Model Training, Fine-Tuning, Prompt Engineering, Generative AI

Backend & Programming
Java, J2EE, Spring Boot, Spring WebFlux (Reactive), Spring Security, Spring REST, Spring MVC, OAuth 2.0, Python, Scala, PHP, Define MVC, C, Gosu, Functional Programming, Reactive Programming

Telecom & Messaging
SMPP (Short Message Peer-to-Peer), SMSC (Short Message Service Center), Carrier Billing, Telecom Integrations, WASPA

Cloud, Containers & DevOps
AWS, Docker, Kubernetes, Azure Edge Hub, Apache Kafka, Apache Spark, CI/CD Pipelines, Jenkins

Databases
PostgreSQL, Oracle, MySQL, Cassandra, Data Modeling (Conceptual / Logical / Physical)

Tools & Platforms
JIRA, Confluence, Microsoft Visio, Draw.io, Lucidchart, Swagger/OpenAPI, Postman

Web & Front-End
Bootstrap, JavaScript, JQuery, Ajax, JSON, HTML, JSP

Guidewire Technologies
Policy Center, Billing Center, Claim Center, Contact Manager

Methodologies
Agile, Waterfall

Application Servers & Middleware
Netty, JBoss Fuse, Apache, Tomcat Apache, Web Logic, JBoss, IIS

Version Control
Git, SVN

Other Technologies
Apache Camel, OSGI, Karaf, REST, SOAP, SOA, RTSP, WordPress, Magento, Axis2

EXPERIENCE PROFILE

1. **Company** : Creative Soft Technologies
   Location : Johannesburg, South Africa
   Duration : Oct 2019 to Present
   Designation : Solution Architect
   Role : Solution, Data and Technical Architect
   Responsibilities :
   - Designed Microservices and Distributed Architecture and developed complex enterprise systems from scratch which generates millions of ZAR per month from a single MNO.
   - Built and deployed a payment integration middleware based on Microservices and Distributed Architecture from scratch acting as a seamless integration layer between Mobile Network Operators across South Africa (Vodacom, MTN, Telkom and Cell C), Indonesia, Malaysia and the Middle East, content providers, app stores and device manufacturers handling subscription management, billing renewals, refunds and fraud detection in real time.
   - Implemented Evina Fraud Detection for preventing fraud during all transaction stages for carrier billing platforms.

- Designed and implemented payment integration solutions compliant with financial industry security standards including OAuth 2.0, OIDC and fraud detection mechanisms serving millions of transactions across multiple Mobile Network Operators in regulated telecommunications and financial services environments.
- Designed and implemented SMPP integrations supporting telecom SMS messaging and carrier billing workflows across multiple mobile network operators.
- Designed conceptual, logical and physical data modelling across multiple projects.
- Led end to end requirement gathering and analysis directly with business stakeholders.
- Drove technical decision making as the sole architect and developer across 6+ concurrent projects.
- Implemented secure API architectures aligned with POPIA compliance standards, including data protection, access control, and secure integration practices.
- Designed and implemented telecom payment integrations aligned with WASPA compliance requirements, including subscription lifecycle management, consent handling, and billing workflows
- Hands on development using Java, Spring Boot WebFlux, Reactive Programming, OAuth 2.0, AWS, Docker, PostgreSQL, MySQL, Netty, R2DBC, PHP and JavaScript across all projects.
- Built and deployed production systems handling real time payment processing at scale including subscription management, billing renewals, refunds and fraud detection.
- Created and presented RFPs, proposals and estimations to management and partners.
- Conducted risk analysis and mitigation planning across all active projects.
- Technologies: Java, Spring Boot, Spring Boot WebFlux, Reactive Programming, OAuth 2.0, OIDC, Spring Security, AWS, Docker, SMPP, SMSC, POPIA, WASPA, PostgreSQL, MySQL, Netty, R2DBC, PHP, JavaScript, TensorFlow, Spring AI, Ollama, Llama3, LangChain

2. **Company** : Cognizant Technology Solutions
Location : Pune, Maharashtra, India
Duration : March 2016 to September 2019
Designation : Architect / Manager - Projects
Role : Solution, Data and Technical Architect
Responsibilities :

- Worked as Architect (Solution, Technical and Data Architect).
- Designed distributed system architecture across IoT, middleware and enterprise application domains
- IoT based project for 5 global clients including Walmart Inc., Nissan Inc., Intel Inc., Pepsi, Ford Inc..
- Architectural design and its implementation for IoT platforms like Bosch IoT and ThingWrox.
- Performed Cassandra data modelling for high volume real time sensor data
- Led requirement gathering and architecture design across teams of up to 21 people
- Managed delivery, resourcing and stakeholder engagement across concurrent projects
- Created RFPs, estimations and technical proposals for client engagements
- Mentored and guided junior architects and developers on architecture best practicesTechnologies: Java, J2EE, Scala, Apache Kafka, Apache Spark, Akka, RabbitMQ, Azure IoT Edge Hub, Cassandra, Docker, Kubernetes, Microservices, REST, Bosch IoT, ThingWorx

3. **Company** : Nihilent Technologies Ltd.
Location : Pune, Maharashtra, India
Duration : January 2013 to September 2015
Designation : Design Lead / Technical Lead
Role : Technical Lead / Lead Integrator / Junior Architect and Onsite Coordinator
Responsibilities :

- Worked on development of modules in Guidewire using Gosu as the main technology in Cape Town for client Santam Insurance.
- Led technical architecture design and integration across insurance and fintech domains
- Performed database design and UML modelling for complex enterprise systems
- Coordinated onsite and offshore teams across time zones as onsite coordinator

- Conducted requirement analysis and produced detailed technical documentation
- Acted as primary technical interface between client, business and development teams
- Technologies: Java, OSGI, Apache Karaf, Apache Camel, SMPP, ISO 8583, SOAP, REST, XML, USSD, Oracle, Gosu, Guidewire, UML

4. **Company** : 3Di Systems India Pvt. Ltd.
   Location : Pune, Maharashtra, India
   Duration : May 2010 to December 2012
   Designation : Technical Team Lead
   Role : Technical Lead / Technical and Data Architect
   Responsibilities :

- Designed system architecture and data models across IoT, healthcare and energy domains
- Conceptualised and developed multiple products from scratch as technical and data architect
- Performed requirement analysis, database design and UML modelling across all projects
- Led small teams of 3 to 6 developers delivering end to end across full SDLC
- Technologies: Java, PHP, C, Hibernate, Struts2, Web Services, SOAP, REST, ARM 9, OMap 3, MySQL, JavaScript, Ajax, HTML, ZigBee, cURL

5. **Company** : Silver Line IT Solutions India Pvt. Ltd.
   Location : Noida, Uttar Pradesh, India
   Duration : April 2009 to August 2009
   Designation : Senior Software Developer
   Role : Senior Software Developer
   Responsibilities :

- Development
- Database Design
- Led development of KlikNBid, an online reverse auction marketplace
- UMLs
- Technologies: PHP, Ajax, JSON, CSS, HTML, Zend Framework, Magento, MySQL, JavaScript, SOAP

6. **Company** : Senate Technologies India Pvt. Ltd.
   Location : Pune, Maharashtra, India
   Duration : July 2007 to March 2009
   Designation : Software Developer
   Role : Software Developer
   Responsibilities :

- Development
- Database Design
- Developed CFD trading platform for Royal Bank of Scotland
- Built Aviation Certificate Remediation system for Jess Air
- Developed logistics solution for ESRI USA using GIS and web services
- Technologies: Java, J2EE, PHP, Symfony, Ajax, JavaScript, Oracle, MySQL, HTML, Web Services, SOAP

PROJECT SUMMARY

Company: **Creative Soft Technologies**

V. **XPIS**

Project Title : XPIS (Xone Payment Integration System)
Client : Xone Communication
Duration : October 2020 - Present
Technology : Java, Spring Boot WebFlux, Microservices, R2DBC, OAuth2, Netty, Postgres, MySQL, AWS

Designation : Solution Architect
Role : Solution, Data and Technical Architect
Responsibilities :

- **Requirement gathering and analysis**
- **Planning**
- **Architecture Design**
- **Data Modelling**
- **Development**
- **Documentation**
- **SPOC**

Team Size : 1

XPIS (Xone Payment Integration System) is a high-availability, scalable telecom transaction orchestration and Direct Carrier Billing (DCB) integration platform designed to abstract heterogeneous Mobile Network Operator (MNO) integrations behind a unified partner-facing API layer.

The platform enabled content providers, app stores, device manufacturers, and digital partners to integrate once with XPIS while seamlessly supporting multiple South African and international MNOs (Middle East, Indonesia and Malaysia), each exposing different APIs, authentication mechanisms, consent workflows, callback models, and billing processes.

XPIS functioned as a multi-tenant telecom monetization middleware platform responsible for:

- operator abstraction and dynamic request routing,
- subscription lifecycle orchestration,
- asynchronous transaction coordination,
- airtime billing workflows,
- consent and redirect handling,
- renewal and retry processing,
- callback/event processing,
- refund and reconciliation operations.

The platform supported WEB, WAP, RESTful, and SMPP-based integrations while providing a unified programmable integration model for partners across multiple operator ecosystems.

Core architectural capabilities included:

- operator-specific adapter integrations,
- distributed asynchronous workflow handling,
- high-throughput telecom transaction processing,
- subscription state management,
- partner onboarding and configuration management,
- fraud detection and traffic validation,
- WASPA-compliant consent and billing enforcement,
- resilient callback orchestration and event-driven processing.

Supported South African MNO integrations included Vodacom, MTN, Telkom, and Cell C.

IV. **XPIS-LP**

Project Title : XPIS-LP (XPIS – Landing Pages)
Client : **Xone Communication**
Duration : January 2022 – March 2022
Technology : PHP 8, Define MVC Framework, JQuery, JavaScript, CSS, HTML
Designation : Solution Architect
Role : Solution, Data and Technical Architect
Responsibilities :

- **Requirement gathering and analysis**
- **Planning**

- **Architecture Design**
- **Development**

Team Size : 1

XPIS-LP is a platform to host and optimize landing pages for mobile subscription services. The platform includes a IP-based customization feature that dynamically tailors user experiences based on their mobile network operator, significantly enhancing user engagement and conversion rates. Designed for scalability, it accommodates a large number of unique landing pages, ensuring broad reach and operational flexibility. Evina Fraud Detection integration provide robust security measures to detected fraud and safeguard user data and ensure compliance with mobile network operators.

III. **XPIS OAuth 2.0 Authorization Server**

Project Title : XPIS OAuth 2.0 Authoriztion Server
Client : **Xone Communication**
Duration : October 2020 – November 2020
Technology : Java, Spring Boot, Spring Security, Postgres
Designation : Solution Architect
Role : Solution, Data and Technical Architect
Responsibilities :

- **Requirement gathering and analysis**
- **Planning**
- **Architecture Design**
- **Data Modelling**
- **Development**
- **Documentation**

Team Size : 1

Designed and developed of custom OAuth 2.0 Authorization Server using Spring Boot and PostgreSQL. Architected the solution to meet security, scalability, and performance requirements. Collaborated with cross-functional teams to define the OAuth 2.0 implementation strategy and ensure alignment with organizational goals for securing XPIS (Xone Payment Integration System). Implemented OAuth 2.0 protocols including authorization code, password, client credentials, and refresh token flows. Designed the database schema in PostgreSQL for efficient storage and retrieval of client details, user credentials, and tokens. Ensured compliance with OAuth 2.0 specifications and best practices.

II. **Micro-Billing Payment**

Project Title : Micro-Billing Payment
Client : **Xone Communication / Vodacom South Africa**
Duration : July 2020 - October 2020
Technology : Java, Spring Boot, Spring Boot WebFlux, Microservices, Oracle DB
Designation : Solution Architect
Role : Solution and Technical Architect
Responsibilities :

- **Requirement gathering and analysis**
- **Microservices Architecture Design**
- **Data Analysis**
- **Development**

Team Size : 1

Vodacom South Africa and its partner is continuously introducing new products and services in the form of content to meet the ever growing demand for mobility, while simultaneously attempting to make such products and services affordable. Micro-billing Payment is its move in this direction. Microbilling is essentially targeted to those consumers who want continued subscription of a content but have limitations because of unavailability of required funds / airtime. Microbilling facilitates such contents to those consumers at a lower price point. This business model has been successful in retaining both partners and consumers and in continuity in delivery of product and services to consumers.

I. **Lending IT Collate Integration**

Project Title	: Lending IT Collate Integration
Client	: **FnB (First National Bank) Business**
Duration	: October 2019 - January 2020
Technology	: Java, J2EE, Spring Boot, Spring Boot WebFlux, Microservices, Oracle DB, RESTful
Designation	**: Solution Architect**
Role	**: Solution, Data and Technical Architect**
Responsibilities	**:**

- **Requirement gathering and analysis**
- **Microservices Architecture Design**
- **Data Analysis**
- **Development**

Team Size : 6

Lending IT Collate Integration was developed for FNB (First National Bank) as a scalable microservices-based integration layer enabling third-party systems and multiple FNB business units to securely interact with the legacy Collate Enterprise Application built on Mainframe and Sybase technologies. The platform modernized enterprise integrations by exposing RESTful APIs using Spring Boot and Spring WebFlux for high-performance and reactive communication through FNB's enterprise protocol layer (PEP). The solution handled data transformation, orchestration, validation, and secure integration between legacy and modern banking systems while improving scalability, maintainability, and interoperability. The implementation also incorporated secure API architecture and data protection practices aligned with POPIA compliance requirements to ensure secure handling and controlled access to sensitive financial and customer information.

Company: **Cognizant Technology Solutions**

I. **Walmart Alarm Response Program - Phase 2 (WARP)**

Project Title	: Walmart Alarm Response Program (WARP) [**OPUS**]
Client	: Walmart
Duration	: April 2018 – Sept 2019
Technology	: Java, J2EE, Azure IoT Edge Hub, REST, Microservices, RabbitMQ
Designation	**: Architect / Manager - Project**
Role	**: Solution, Data and Technical Architect**
Responsibilities	**:**

- **Requirement gathering and analysis**
- **Architecture Design**
- **Cassandra Data Modelling**
- **Data Analysis**
- **Development**

Team Size : 21

In continuity to the phase 1 (listed as no. IV below), the phase 2 is focused on integration of Azure Edge Hub. Also, incorporation of a system for changing the behaviour of the controllers of each stores of the Walmart.

II. **ETL 2.0**

Project Title	: ETL 2.0
Client	: Nissan Japan
Duration	: January 2018 - April 2018
Technology	: Java, J2EE, Spring MVC, Spring Boot, Spring REST
Designation	**: Architect / Manager - Project**
Role	**: Solution, Data and Technical Architect**
Responsibilities	**:**

- **Requirement gathering and analysis**

- **Architecture Design**
- **Data Analysis**
- **Development**

Team Size : 5

Nissan Japan intended to enhance their end user experience by introducing ETL 2.0 - first time introduction of UI based desktop application. It has introduced since ETL 2.0 to get rid of manual effort and facilitate the end user to have more control over the different activities involved in conversion of VSS files to JSON files and other activities thereafter to IoT platform of Nissan.

III. **IoT Middleware**

Project Title : IoT Middleware
Client : Nissan North America Inc.
Duration : May 2017 - December 2017
Technology : Java, J2EE, Spring MVC, Spring Boot, Microservices
Database : MySQL, Oracle 11g
Designation : Architect / Manager - Project
Role : Solution, Data and Technical Architect
Responsibilities :

- **Requirement gathering and analysis**
- **Microservices Architecture Design**
- **Data Modelling**
- **Data Analysis**
- **Development**

Team Size : 14

Nissan North America Inc. intended to enhance their customer experience by introducing Alexa devices in their electric vehicles. In order to achieve Alexa Skills are being developed for different Alexa devices that will be inbuilt in Nissan automobiles and / or the homes of its consumer. Since request made by these Alexa devices will be communicating with the Nissan Middleware and the 3rd party services which are in already in place, there is need to introduce an intermediate middleware. IoT middleware will be acting as a web channel / gateway / intermediate middleware in order to facilitate these service requests. Based on the requests and responses, IoT middleware is benefit the business in terms of analytics, metering, routing, auditing, orchestration which will eventually result in monetization.

IV. **Walmart Alarm Response Program** (**WARP)**

Project Title : Walmart Alarm Response Program (WARP) [**OPUS**]
Client : Walmart
Duration : March 2016 - April 2017
Technology : Java, J2EE, Scala, Kafka, REST, Spark, Microservices, Akka, RabbitMQ
Database : Cassandra
Designation : Architect / Manager - Project
Role : Solution, Data and Technical Architect
Responsibilities :

- **Requirement gathering and analysis**
- **Architecture Design**
- **Cassandra Data Modelling**
- **Data Analysis**
- **Development**

Team Size : 21

This project is being developed to minimize the food wastage across Walmart Stores which is currently in the tune of millions of dollars per year by automating the work order creation process based on the data coming from sensors from Freezers and HVAC systems through the controller hardware. And hence reduce the current work order creation latency. Also to reduce the energy spent across Walmart stores by ensuring optimized energy usage during peak hours. To implement a demand and response use case and give appropriate instructions to the store people for optimizing the energy consuming devices usage.

Company: **Nihilent Technologies Ltd**.

I. **Ignite 2**

Project Title	: Ignite 2 - Release 2
Client	: Santam Commercial
Duration	: July 2014 - September 2015
Location	**: Cape Town, South Africa**
Technology	: Gosu, **Guidewire**, Policy Center, Billing Center, Contact Manager, Integration
Database	: MSSQL 2008, Sybase
Designation	**: Design Lead**
Role	**: Lead Integrator / Technical Lead cum Junior Architect**
Responsibilities	**:**

- **Development**
- **Requirement gathering**
- **Analysis**
- **Architecture Design**

Team Size : 10

Santam has started the Ignite programme with goal of covering the mass audience of South Africa. Santam provides two major insurances, Personal and Commercial. Ignite programme covers the commercial part Insurance Line. Santam has opted for Guidewire, an Insurance tool for available its commercial insurance to public. Currently, commercial and personal data which were maintained via Mainframe are being migrated and replicated to Policy Center and Mainframe, respectively.

II. **Fundamo DTAC**

Project Title	: DTAC
Client	: Visa Inc.
Duration	: June 2013 - August 2014
Location	**: Cape Town, South Africa**
Technology	: Java, OSGI, Apache Karaf, Apache Camel, SMPP, SMS, ISO 8583, Web Services, SOAP, Rest, XML, Ajax, USSD
Database	: Oracle
Designation	**: Design Lead**
Role	**: Onsite Coordinator and Technical Lead**
Responsibilities	**:**

- **Development**
- **Requirement Analysis**
- **Architecture Design**
- **Database Design**
- **UML**
- **Technical Documentation**

Team Size : 15

DTAC is one of mobile money projects of Visa Inc. developed specifically for Thailand's DTAC Mobile Network Operator. This project/application facilitates the people of Thailand who cannot afford to have a bank account to transact money through their mobiles. The purpose is to fulfil the requirement of card based transaction through your mobile, hence, removing the constraint of owning bank accounts or carrying of cash, plus any kind of online transaction.

III. **MediSwitch**

Project Title	: LifeDoc - Universal Health Record
Client	: MediSwitch
Duration	: January 2013 - May 2013
Technology	: Java, JSP, Spring MVC, Servlet, Hibernate, Web Services, SOAP, Ajax, JavaScript, CSS, HTML

Database : Oracle
Designation : Senior System Analyst
Role : Technical Lead
Responsibilities :

- **Development**
- **Leading a team of 10 individuals**
- **Database Design**
- **UML**

Team Size : 18

MediSwitch has embarked on an initiative to establish a Universal Health Record system (UHR) that will enable them to diversify into new market segments. UHR will allow patients/individuals access to a single repository where all their detailed health records will be being stored.

Company: 3Di Systems India Pvt. Ltd.

I. **GreenHub**

Project Title : GreenHub
Client : California and Los Angeles Water and Power Department
Duration : September 2012 - December 2012
Technology : Java, JSP, Servlet, Struts2, Hibernate, Web Services, SOAP, Ajax, JavaScript, CSS, HTML
Database : MySQL
Designation : Technical Lead
Role : Technical and Data Architect
Responsibilities :

- **Development**
- **Requirement Analysis**
- **Architecture Design**
- **Database Modelling and Design**
- **Data Analysis**
- **UML**

Team Size : 6

The project GreenHub is a single point of connection between applications and devices. It handles data gathering and command delivery between all current and future devices and applications that will attach to the Smart Grid. With it, utilities can increase or decrease the amount of data and the types of data and commands flowing from devices to applications without having to change either the MDM or the communications modules on separate applications. The GreenHub is an application integrated with ZigBee devices for controlling the energy meter. As for now, the GreenHub is mainly used for remote connect/disconnect of energy meter.

II. **AHIMS - American Health Inspection Management Systems**

Project Title : AHIMS - American Health Inspection Management Systems
Client : American Health Inspection Management Systems, California
Duration : April 2012 - August 2012
Technology : Java, JSP, Servlet, Web Services, SOAP, Rest, XML, MySQL, Ajax, JavaScript, CSS, HTML
Database : Oracle
Designation : Technical Lead
Role : Technical Lead and Architect
Responsibilities :

- **Development**
- **Requirement Analysis**
- **Architecture Design**
- **Data Modelling Design**
- **UML**

Team Size : 4

The AHIMS project was to help the inspection management of California county hospital to efficiently inspect the condition of hospital for safety, sanitation and reporting. AHIMS hand held applications running on several hand held devices were provided to healthcare care inspector. All the inspection data were saved on a centralized portal. Roles and responsibilities were handled through the portal. Changing access level of an inspector changes the features of the hand held device application. Hence, AHIMS provide a flexible solution for different level of inspection in hospitals.

III. **LOAP APP - Smart Grid Gateway**

Project Title : LOAP APP - Smart Grid Gateway
Client : Los Angeles Water and Power Department (LAWPD)
Duration : December 2011 - April 2012
Technology : Java, JSP, Servlet, EJB, Oracle SOA Suite, BPEL, Web Services, SOAP, Ajax, JavaScript, CSS, HTML
Database : Oracle
Designation : **Technical Lead**
Role **: Technical Lead and Architect**
Responsibilities **:**

- **Development**
- **Requirement Analysis**
- **Architecture Design**
- **Database Design**
- **UML**

Team Size : 4

The project LOAP APP, is a part of Smart Grid Gateway SOA Suite provided by Oracle. Oracle Utilities Smart Grid Gateway (SGG) is a new and better structure for handling Smart Grid data. It is a single point of connection between applications and devices. It handles data gathering and command delivery between all current and future devices and applications that will attach to the Smart Grid. With it, utilities can increase or decrease the amount of data and the types of data and commands flowing from devices to applications without having to change either the MDM or the communications modules on separate applications. The LOAD APP is an application integrated with SGG for controlling the energy meter. As for now, the LOAD APP is mainly used for remote connect/disconnect of energy meter. We are working on the advancement of this application for the water pump control. Functionality will be same remote connect/disconnect.

IV. **ECMAS**

Project Title : ECMAS
Client : STC Care, Saudi Arabia
Duration : June 2011 - November 2011
Technology : Java, Hibernate, PHP, JSP, Servlet, Objective C, Android, Blackberry, XML, Web Services, SOAP, Ajax, JavaScript, CSS, HTML
Database : MySQL
Designation : **Technical Lead**
Role **: Technical Lead and Architect**
Responsibilities **:**

- **Development**
- **Requirement Analysis**
- **Architecture Design**
- **Database Design**
- **UML**

Team Size : 6

The project ECMAS, is Employee Care Management Application Suite. The main product is the mobile application developed for iPhone, Android smart phones and blackberry. This application is for managing the activities of the employee of STC Care organization. There are three levels of users - Super Administrator, Group Administrator and Employees. Super Administrator is responsible adding new users and to create Group Administrator. These group administrators are responsible for managing the

activities of rest of employees. These activities include the assigning task, job card, granting leave, promotional messages, notifications, etc. through the portal with broadcast options to user, group and global. Employees logs into their application and they can check their job card status, ads, news, notifications, etc. and respond to it accordingly.

V. **KLM India**

Project Title	: KLM India
Duration	: April 2011 - June 2011
Technology	: PHP, Ajax, JavaScript, CSS, HTML, Flex, FBML
Framework	: Self Developed
Database	: MySQL
Designation	**: Member Technical Staff**
Role	**: Technical Lead**
Responsibilities	**:**
	▪ **Development**
	▪ **Requirement Analysis**
	▪ **Architecture Design**
	▪ **Database Design**
Team Size	: 3

The project KLM India is a Facebook application. It is a poll application. The poll question is posted by Administrator. Interface has been developed in Flex. Backend is in PHP. Winner is decided randomly from the maximum numbers of option that has been voted.

VI. **Cinera**

Project Title	: Cinera, a Digital Signage
Duration	: May 2010 - December 2012
Technology	: Java, PHP, C, cURL, Hibernate, Web Service, SOAP, REST, Ajax, ARM 9, OMap 3, JavaScript, CSS, HTML
Framework	: Self Developed
Database	: MySQL
Designation	: **Member Technical Staff**
Role	**: Technical Lead**
Responsibilities	**:**
	▪ **Development**
	▪ **Requirement Analysis**
	▪ **Architecture Design**
	▪ **Database Design**
	▪ **Data Analysis**
	▪ **UML**
Team Size	: 5

The project Digital Signage, based on 4-Tier architecture, is a form of electronic display that shows information, advertising and other messages. Digital signs (such as LCD, LED, plasma displays, or projected images) can be found in public and private environments, such as retail stores and corporate buildings. Advertising using digital signage is a form of out-of-home advertising in which content and messages are displayed on digital signs with a common goal of delivering targeted messages to specific locations at specific times.

VII. **UBED**

Project Title	: UBED
Duration	: Sept 2010 - Mar 2011
Technology	: Java, PHP, Hibernate, Objective C, Ajax, JavaScript, CSS, HTML
Framework	: Self Developed
Designation	: **Member Technical Staff**
Role	**: Technical Lead**

Responsibilities :

- **Development**
- **Requirement Analysis**
- **Architecture Design**
- **Database Design**
- **UML**

Team Size : 3

The project UBED is both iPhone and portal based short messaging system. One can send/twit using iPhone and/or portal. Common database is used which is at portal side. Its functionality is same like Twitter.

VIII. **License Server**

Project Title : License Server
Duration : July 2010 - August 2010
Technology : Java, C, cURL, PHP, Web Services, ARM 9, OMap 3, Ajax, JavaScript, HTML
Database : MySQL
Designation : **Member Technical Staff**
Role **: Individual contributor**
Responsibilities :

- **Conceptualized the product**
- **Development**
- **Requirement Analysis**
- **Architecture Design**
- **Database Design**
- **UML**

Team Size : 1

The project License Server designed for automating the device integration to the portal. Device developed by our company were needed to have some particular device serial number, device name, device username/password based on our custom defined algorithm. A raw device connected to License portal are authenticated for our copyright, and device serial number and other important attributes were assigned to device. Once device serial number is assigned, device details are communicated to Digital Signage portal through web services for assigning various schedules/tasks to that particular device.

IX. **The Mom App**

Project Title : The Mom App
Duration : May 2010 - December 2012
Technology : Java, PHP, Zend, Objective C, XML, Web Service, Ajax, JavaScript, CSS, HTML
Database : MySQL
Designation : **Member Technical Staff**
Role **: Technical Lead**
Responsibilities :

- **Development**
- **Requirement Analysis**
- **Architecture Design**
- **Database Design**
- **UML**

Team Size : 4

The project The Mom App iPhone and portal based application. Both portal and iPhone works on the database available on the portal. The Mom App provides moms with the most necessary tools they need to manage their busy days. The Mom App provides unique, integrated platform to make her day more organized. App includes Recipes, Shoppers, MyDay, Someday and Medical. Along with it, it provides several features like sharing and grouping, hence making a small social network.

Company: Silver Line IT

I. **KlikNBid**

Project Title	: KlikNBid
Client	: Dual Tech
Duration	: June 2009 - August 2009
Technology	: PHP, Ajax, JSON, CSS, HTML
Framework	: Zend
CMS	: Magento
Database	: MySQL
Designation	: **Senior Software Developer**
Role	**: Lead Developer**
Responsibilities	**:**

- **Development**
- **Database Design**

Team Size : 3

The project KlikNBid is an online auction marketplace. This "strategic game" is based on the new concept of reverse auctions. Reverse auctions are based on a simple principle, the winning bidder is one who has proposed the auction the lowest unique unlike conventional auction where it should always submit a higher bid auctions already completed.

II. **Hypios.com**

Project Title	: Hypios.com
Client	: Hypios
Duration	: April 2009 - June 2009
Technology	: PHP, Ajax, JSON, YUI, DoJo, JavaScript, CSS, HTML
Framework	: Zend
Database	: MySQL
Designation	: **Senior Software Developer**
Role	**: Lead Developer, Technical Lead**
Responsibilities	**:**

- **Development**
- **Architecture Design**
- **Client interaction**
- **Database Design**
- **UML**

Team Size : 5

The project Hypios.com is an online marketplace that enhances the global exchanges of ideas by connecting companies looking for solutions (seekers) to a large panel of experts (solvers) who help them to solve problem of any kind.

Company: Senate Technologies India Pvt. Ltd

I. **Market Gup Shup**

Project Title	: Market Gup Shup
Duration	: January 2009 - March 2009
Technology	: PHP, Ajax, JavaScript, CSS, HTML
Framework	: Symfony
Database	: MySQL
Designation	: **Software Developer**
Role	**: Senior Developer**
Responsibilities	**:**

- **Development**

Team Size : 5

The project Market Gup Shup is an online publication that strives to produce essential financial news from all the world's markets. The main purpose is to empower readers by bringing clarity and simplicity to global markets through the widest provision of as-it-happens news and insightful analysis. Also the reader has privilege to open account and discuss their views through forums and blogs.

II. **Online Petition Hosting**

Project Title	: Online Petition Hosting
Duration	: 2 January 09 - 10 January 09
Technology	: Java, JSP, Servlet, Ajax, JavaScript, CSS, HTML
Database	: MySQL
Designation	: **Software Developer**
Role	**: Individual Contributor**
Responsibilities	**:**
	▪ **Development**
	▪ **Architecture Design**
	▪ **Database Design**
Team Size	: 1

The project Online Petition Hosting (OPH) petition hosting portal and premium content site. Online Petition Hosting (OPH) is a free speech platform and has no political affiliations. This site makes online petitions, chat rooms, forums, message boards, and/or news groups available to its users. A petition begins with a request, followed by well researched reasons for making the request. Each petition provides a description of relevant circumstances and links to documentation or facts that support that description. OPH aims to keep up to date with the latest trends and requirements for internet petitions and e-signatures while also providing a customized experience for campaigners, partners and signers.

III. **Contract for Difference**

Project Title	: Contract for Difference (CFD)
Client	: Royal Bank of Scotland
Duration	: July 2008 - December 2008
Technology	: PHP, Ajax, JavaScript, CSS, HTML
Framework	: Symfony
Database	: Oracle
Designation	: **Software Developer**
Role	**: Software Developer**
Responsibilities	**:**
	▪ **Development**
	▪ **Client Interaction**
	▪ **Requirement Analysis**
Team Size	: 10

The project Contract for Difference (CFD) designed for our client Royal Bank Of Scotland Group. A CFD (or Contract for Difference) is simply an agreement to exchange the difference in value of a particular share between the times at which the contract is opened and the time at which it is closed. When trading Share CFDs you deal at the real market price. CFDs are a versatile trading vehicle, giving access to share price movements without owing the underlying shares, hence providing choice for flexible, cost-efficient trading. CFD allows trading forex, indices, commodities and more, around the clock, all on one trading account. Plus trade thousands of European and international share CFDs at the guaranteed market price. CFD trading is very similar to normal share dealing in two respects. You deal at the cash price of the share, and pay a commission which is calculated as a percentage of the value of the transaction. When you open a position, however, you do not have to pay for the full value of the shares. Instead you put up a deposit, from just 5% for European shares. This means you can trade up to 20 times your initial capital. When you close your position, the difference between your opening contract value and your closing contract value is realized. So just as with buying shares or trading futures, the degree to which you are correct in your CFD trading affects how much you make or lose.

IV. **Aviation Certificate Remediation**

Project Title	: Aviation Certificate Remediation
Client	: Jess Air
Duration	: February 2008 - August 2008
Specification	: Java, J2EE, Servlet, JSP
App Server	: Apache Tomcat
Designation	: **Software Developer**
Role	**: Software Developer**
Responsibilities	**:**
	▪ **Development**
Team Size	: 10

'Aviation Certificates Remediation' is a tool for the distribution of Aviation Insurance Certificates electronically. Earlier the certificates were used to be couriered to the clients and hence, were a lot time consuming. To overcome this, 'Aviation Certificates Remediation' system was developed. In 'Aviation Certificates Remediation' system the users i.e. the marsh users, the Clients and the interested third parties were able to access their records via an intranet website and download their certificates in PDF format, for printing locally. 'Aviation Certificates Remediation' portal based intranet website was made available for Marsh users to administrate the system. Marsh users have the privilege to add client and the third parties. It consists of 9 major functionalities viz. Maintain User Account, Maintain Client Profile, Obtain Password Reminder, Maintain Certificate Record, Maintain Addendum Records, Group Management, Publish Records, Access Records and Expire Record. Client has the right to access the certificate and make changes to the data whereas the associated third parties can only view the certificate and the data. The Certificates is generated by Marsh Users and no one has the edit rights to it. The data pertaining to any specific record (certificate) is stored in the oracle database and the actual certificates (pdf's) go to the LiveLink database.

V. **Logistics Solution**

Project Title	: Logistics Solution
Client	: ESRI (Environmental Systems Research Institute), USA
Duration	: September 2007 - February 2008
Technology	: Java, J2EE, Servlet, JSP
Designation	: **Software Developer**
Role	**: Software Developer**
Responsibilities	**:**
	▪ **Development**
Team Size	: 6

This project is based on Geographical Information System (GIS) domain. The application is being developed for ESRI using web services, arc web, and SOAP for helping the logistics companies and their other customers. This software helps to locate the most optimized and efficient path for their customers. There are 6 modules in total in this project namely Depot Management, Stop Management, Upload, Export, Sequence Solver and Reports. This also suggests how to travel between the depots (Starting Point) and the Stops (Culminating point) User has the option to update and delete the Depots and Stops. Upload module, provides with the option to upload Depots and Stops from the file (dbf, csv) to the data file. The Export module, Depots and Stops in Data file can be saved in the file format (dbf, csv). In Sequence solver, module user selects data in the database and calls Arc web services which give the most efficient routes between the Depots and the Stops along with its latitude and longitude. In Reports module, the particular route inserted by sequence solver is displayed along with the map. The route map generated is based on several facts as Days of week, Route types and Area name.

VI. **BlueSands**

Project Title	: BlueSands
Client	: BlueSands Canada
Duration	: July 2007 - September 2007
Technology	: Java, J2EE, Servlet, JSP
Database	: MySQL
Designation	: **Software Developer**
Role	**: Software Developer**
Responsibilities	**:**

- **Development**

Team Size : 10

The project BlueSands designed for our client Blue Sand Canada. Basically project depends on three Module Task Module, Activity Module and Business Module. Task and Activity depend on each other. Main feature of application are Roles, Document Generation, Attachment and Scanning, Searching data at various level (Activity, Task, and business level). Five level pop up maintain (Web Part). User can move any part of application. The project Designed on 3-tier architecture, Server-Side Technology Java, JSP and back-end data store in MySQL. Client-Side used technology JavaScript and Ajax controls.

ACADEMIC PROJECT

I. **Mobile Architecture Share Trading System**

Project Title	: Mobile Architecture Share Trading System
Duration	: March 2007 - July 2007
Technology	: JAVA, JSP, J2ME Toolkit
Database	: MS Access
Role	: Programmer
Team Size	: 1

Mobile Architecture Share Trading System focuses on the trading of shares through the mobile handsets of the consumer. This system provides flexibility of time and location. This system provides extensibility to the potential buyer or seller and ease of operating. As compared to online system of share trading this system does not requires its users to be computer literate and thereby erases most of the pitfalls which are faced by the users of online trading systems. It is an extension to online trading system with the facility of mobile application. As it can be observed that more people have access to mobiles as compared to Internet, therefore it also increases the scope of the application. This system aims at providing round the clock information regarding latest trends of the share market and helps them to decide and transfer the shares.

PERSONAL PROJECTS

I. Tabloid

Project Title	: Tabloid
Duration	: June 2024 - Present
Technology	: Spring Boot WebFlux, Spring AI, Ollama, Langchain, Llama3, TensorFlow, PHP 8, Define MVC, RESTful, JQuery, HTML, CSS
Database	: Postgres
Team Size	: 1

Tabloid is comprised of 6 key sub-projects - **(1) Data Extractor (2) Control Panel (3) Tabloid AI (4) Ollama Async Wrapper (5) Tabloid (6) Tabloid AI Trainer**. The ***Data Extractor*** retrieves news articles from diverse RSS feeds using batch processing, storing them in PostgreSQL for further analysis. A ***Control Panel*** facilitates management of news portal details and RSS feed links utilized by the extractor. ***Tabloid AI*** employs Ollama and Llama3/Neural-Chat to categorize news articles. Additionally, an ***Ollama Async Wrapper*** was engineered to add asynchronous and concurrent processing capabilities to Ollama. ***Tabloid***, is a web platform presenting curated news content post-processing. ***Tabloid AI Trainer*** is an ongoing sub-project for training Llama3 using TensorFlow, Spring AI, and Langchain to categorize news articles effectively.

II. PHP AJAX RSS News Reader

Project Title	: PHP AJAX RSS News Reader (http://newsfeed.noads.biz/)
Duration	: August 2008 - August 2008
Technology	: PHP, Ajax, JavaScript, CSS, HTML
Database	: MySQL
Team Size	: 1

PHP AJAX RSS News Reader used to retrieve remote RSS feeds and generate HTML links. It can retrieve a given RSS feed, parse its contents and generate HTML links from all the feed items and titles. The HTML is outputted as the current script output and so it can be used to generate feed item listings retrieved using AJAX requests.

AWARDS AND RECOGINITIONS

- **Multiple URL Asynchronous Call PHP:** [WON 1st Position in Innovative Awards for the month of April 2025][Link]
- **Reactive Asynchronous Rate Limiter PHP:** [WON 4th Position in Innovative Awards for the month of February 2025][Link]
- **Rate Limited in PHP:** [WON 3rd Position in Innovative Awards for the month of November 2024][Link]
- **Generic Executor Service:** [WON 6th Position in Innovative Awards for the month of November 2024][Link]
- **Simulation of errors and exception:** [WON 2nd Position in Innovative Awards for the month of Dec 2015][Link]
- **Error Logging:** [WON 1st Position in Innovative Awards for the month of Oct 2010][Link]
- **YouTube Trailer:** [WON 3rd Position in Innovative Awards for the month of March 2010][Link]

EDUCATIONAL QUALIFICATION

B.E. (Bachelor of Engineering) in Computer Science & Engineering
Vishveshwariah Technological University | 2003-2007