



### Professional Summary

- **Experienced Software Developer:** Over 7 years of expertise in designing, developing, and maintaining web-based, enterprise, client/server, and distributed applications using Java, J2EE, Node.js, and Python. Proficient in building robust back-end architectures, RESTful micro-services, and scalable cloud-native solutions. Adept in implementing design patterns, optimising performance, and delivering user-centric solutions across diverse domains.
- **Backend and Cloud Proficiency:** Skilled in developing RESTful micro-services, event-driven architectures, and scalable back-end systems using Spring Framework. Expertise in designing and deploying on-premises and cloud solutions leveraging AWS (EC2, S3, RDS, Lambda), PCF, GCP, and Azure. Experienced in implementing containerisation and orchestration tools like Docker and Kubernetes for efficient cloud-native development.
- **Front-End and Database Expertise:** Hands-on experience in building MVC-based Single Page Applications (SPAs) with Angular, React, and Node.js, as well as server-side rendering with Thymeleaf, JSP and Spring MVC. Proficient in managing and optimising relational and NoSQL databases, including SQL, PL/SQL, Oracle, MySQL, MongoDB, Cassandra, and SQL Server. Skilled in integrating distributed systems using messaging and streaming platforms like Apache Kafka, ensuring high availability and scalability.
- **DevOps and CI/CD:** Adept in using Git, GitLab, and Bitbucket for version control and automating development pipelines for efficient CI/CD deployments. Proficient in leveraging tools like Jenkins for build automation and Terraform for implementing Infrastructure as Code (IaC). Experienced in monitoring and performance optimisation using Datadog and Dynatrace, ensuring streamlined deployments, operational efficiency, and system reliability in DevOps workflows.
- **AI, ML & Data Science:** Experienced in user behaviour analysis research using machine learning models, including Large Language Models (LLMs). Proficient in data analysis, visualisation, and exploratory data analysis (EDA) using tools like Pandas, NumPy, Matplotlib, Seaborn, and Plotly. Skilled in building and deploying predictive models for user segmentation, personalisation, and behaviour prediction. Familiar with deep learning, NLP, reinforcement learning, and data preprocessing for effective model training and evaluation. Adept at utilising ML frameworks such as TensorFlow, PyTorch, and Scikit-Learn to derive insights from large datasets and create actionable visualisations.

### Technical Skills

<b>Languages</b>	Java, J2EE, C, Python 3.6+, Node.js, R, JavaScript (ES6+), TypeScript, SQL, Shell Scripting (Bash), Groovy, Ruby, Kotlin
<b>Web Technologies</b>	SERVLETS 3.1, JSP 3.0, JavaBeans 3.0, Java Servlet API 3.0, Spring Boot, Spring MVC, Thymeleaf, Hibernate, RESTful APIs, WebSocket, HTML5, CSS3, JavaScript (ES6+), Bootstrap, AJAX, JSON, jQuery, XML, JSP, Web Services, SOAP, Tomcat, Jetty, Apache HTTP Server.
<b>AI &amp; ML</b>	TensorFlow, Keras, PyTorch, Scikit-Learn, XGBoost, LightGBM, Hugging Face Transformers, OpenAI GPT, SpaCy, NLTK, Gensim, AllenNLP, Apache Kafka (for stream processing), MLflow, DVC (Data Version Control), RapidMiner, Orange.
<b>Data Science</b>	Pandas, NumPy, Matplotlib, Seaborn, Plotly, Power BI, Tableau, Jupyter Notebooks, Apache Spark, Dask, SciPy, Statsmodels, SQL, Hive, PySpark, AWS Sagemaker, Google AI Platform, Microsoft Azure Machine Learning, Google Colab.
<b>Environment</b>	Client/Server, Distributed Computing, Cluster Computing, Mainframes, Time-sharing computing Environment, Grid-computing.

<b>Databases</b>	<p><b>SQL Databases:</b> IBM DB2, Oracle, Microsoft SQL Server, MariaDB, MySQL, AWS Aurora, PostgreSQL, SQLite, Google Cloud SQL, Amazon RDS, Snowflake, Apache HBase.</p> <p><b>NoSQL Databases:</b> MongoDB, AWS DynamoDB, Cassandra, Redis, Elasticsearch, CouchDB, Neo4j, Firebase, Apache Cassandra, Amazon DocumentDB, Azure Cosmos DB.</p> <p><b>Cache Technologies:</b> Redis, Memcached, Amazon ElastiCache, Hazelcast, Varnish, Nginx (as reverse proxy caching).</p>
<b>Messaging Queues</b>	Apache Kafka, RabbitMQ, ActiveMQ, Amazon SQS, Kafka Streams, AWS Kinesis, Google Cloud Pub/Sub, Azure Service Bus, NATS
<b>Identity &amp; Security</b>	Spring Security, Okta, Keycloak, Apigee, Syncope, OAuth 2.0, OpenID Connect, SAML, JWT, Multi-Factor Authentication (MFA), User Federation, API Security, Role-Based Access Control (RBAC), Identity Federation.
<b>Build Tools</b>	Ant 1.10, Maven 3.3.9, Gradle 3.4.1
<b>Cloud Environment</b>	Azure, AWS, GCP, Netflix Eureka, Mesos, Spring Cloud, Docker, Kubernetes.
<b>Cloud Services</b>	<p><b>AWS Cloud Services &amp; Serverless:</b> AWS Lambda, API Gateway, AWS Step Functions, AWS S3, DynamoDB, EC2, RDS, Elastic Beanstalk, Elastic Load Balancer, CloudFormation, AWS Fargate.</p> <p><b>GCP Cloud Services &amp; Serverless:</b> GCP Cloud Functions, Google Cloud Storage, Firebase, Google App Engine, Google Kubernetes Engine (GKE), Google Cloud Run, Cloud Pub/Sub.</p> <p><b>Azure Cloud Services &amp; Serverless:</b> Azure Functions, Azure Blob Storage, Azure Logic Apps, Azure App Service, Azure Kubernetes Service (AKS), Azure Event Grid, Azure Service Bus.</p>
<b>Deployment Tools</b>	Terraform, Terraform Templates, Jenkins, TeamCity, Harness, GitLab CI/CD, GitHub Actions, Docker, Kubernetes, Ansible, Chef, Puppet, Infrastructure as Code (IaC), Code as Infrastructure, Continuous Integration/Continuous Deployment (CI/CD), AWS CloudFormation, Azure DevOps, CircleCI, Helm, Nginx, Prometheus, Grafana, ELK Stack.
<b>Internet Tools</b>	Trello, PuTTY, Slack, Microsoft Teams, JIRA, Browsers (Chrome, Firefox, Edge), Confluence, draw.io, Lucidchart, Lens for Kubernetes, Asana, GitHub, GitLab, Bitbucket, Docker, Postman, Figma, Miro, Notion, Basecamp, Jira Service Desk.
<b>Testing Tools</b>	<p><b>Unit Testing Tools:</b> Mockito (Spring), JUnit, TestNG, Jasmine, Karma, Jest, Mocha, Chai, Enzyme.</p> <p><b>Integration Testing Tools:</b> Postman, Rest Assured, Cucumber, WireMock, Pact (Contract Testing), Apache JMeter, SoapUI.</p> <p><b>UI Testing Tools:</b> Selenium, Cypress, Playwright, Appium, Robot Framework.</p> <p><b>CI/CD &amp; Code Quality:</b> GitHub Actions (CI/CD testing), SonarQube (for static code analysis).</p>
<b>Other</b>	Data Modelling, UML, ERDs, Software Proficiency, Microservices Architecture Design, Serverless Architecture, Behavior-Driven Development (BDD), Event-Driven Architecture (EDA), Domain-Driven Design (DDD), CQRS (Command Query Responsibility Segregation), API Design & Documentation (Swagger/OpenAPI), Event Sourcing, Architectural Design Patterns (e.g., Circuit Breaker, Saga)

## Functional Skills

<b>Management and Leadership Skills</b>	Ability to produce realistic software schedules, Project Management, Strategic/ Tactical Planning, Business Analysis and Development, Budgeting/Forecasting, and New Product Development
<b>Training &amp; Development</b>	Technical ability to Train and Troubleshoot, Inspect and Adapt approach, Organizational skills, Conflict Resolution Skills

## Professional Experience (In Reverse Chronological Sequence)

Organization Name	University of Central Missouri(UCMO)
Department	NETML Lab, Research Center
Project Name	User behaviour Detection using network packets. (CYBR)
Work Location	Innovation Parkway, lee summit, MO, USA
Project Description	Work on research work for identifying the user behaviour of working using their network packet headers and visualise it using python and R. Used LLM machine model to learn the behaviour (tokenised packets) to identify their identity if legitimate or an intruder.
Tools and Technology	Pycharm, R, LLM, Ollama, Mistral AI, Laama 3 ,ML models, Regression, Classification

Organization Name	Capgemini
Client Name	Virgin Voyages
Project Name	Identity and Security Management (Syncope)
Project Duration (From & To)	2 year (Aug/2021 to July/2023)
Role/Title	Consultant/B2
Work Location	Gurugram, Haryana (Client Location Florida)
Project Description	<p><i>Worked with handling the Identity and security of the crew members using a open source product <b>Syncope</b>.</i></p> <p><i>Manage the module using the Kafka messaging queue to embark and debark the crew members in a Ship.</i></p> <p><i>Created micro services each with a single prospective and integrations using messaging queues.</i></p>
Responsibilities	<ul style="list-style-type: none"> <li>• <b>Micro-services Development &amp; Maintenance:</b> Developed and maintained <b>micro-services workflows using spring boot and python</b>, implementing functional testing with frameworks like JUnit and PowerMockito to detect functional changes. Utilised SAST, DAST, AVO, and OSS scans for vulnerability detection and resolution.</li> <li>• <b>Agile Methodology &amp; Task Management:</b> Collaborated with developers to clarify tasks using Agile methodology and managed transparency through Rally boards.</li> <li>• <b>Documentation &amp; Monitoring:</b> Documented workflows using Lucidchart, Swagger UI.</li> </ul>
Responsibilities	<ul style="list-style-type: none"> <li>• <b>Cloud Deployment &amp; Infrastructure:</b> Deployed services on GCP using Helm charts and Terraform for Infrastructure as Code (IaC), leveraging GCP services like Vault, FaaS, and Kubernetes (K8s).</li> <li>• <b>Data Science &amp; Migration:</b> Migrated modules to utilize Jupyter Notebooks for solutions and developed Python-based solutions for identity management, error handling, and report generation.</li> </ul>

<b>Tools</b>	JIRA(Agile), IntelliJ, PyCharm, Jupyter Lab and Notebooks, Postman, Offset Explorer, Dbveaver
<b>Software / Special Tools</b>	Java 17, Spring 3.2 AWS services, JIRA, GITLab, Azure board, Lucid Charts, Apigee, Okta, Cypress
<b>Languages</b>	Java, Spring, HTML, CSS, JavaScript, Bootstrap, TypeScript, Angular, React

<b>Organization Name</b>	<b>Capgemini</b>
<b>Client Name</b>	<b>Baker Hughes (BH)</b>
<b>Project Name</b>	Open JDK Migration – CSD
<b>Project Duration (From &amp; To)</b>	9 months (May/2021 to Dec2021)
<b>Role/Title</b>	Consultant/B2
<b>Work Location</b>	Gurugram, INDIA (Client Location - Atlanta, GA)
<b>Project Description</b>	<i>72 Java based services and applications that need to migrate to java 17 adopt open JDK or Amazon Corretto and bump the spring boot version to latest along with the changes in cloud migration. Major Services - Pilot, PHMD, Phantom, IKTV Dashboard, Advanced System, Conformity, Gate, Offbrilliantfactory, asset tracking, tools tracking.</i>
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>• <b>Application &amp; Version Upgrades:</b> Migrated applications to the latest Java version and conducted compatibility testing. Upgraded servers (Tomcat, JBoss) and Spring Boot services, resolving deprecated libraries and vulnerabilities.</li> </ul>
<b>Responsibilities (Cont.)</b>	<ul style="list-style-type: none"> <li>• <b>Functional Testing &amp; Scanning:</b> Performed functional testing with JUnit and PowerMockito, ran SAST, DAST, AVO, OSS, and Fortify scans to identify and fix issues and test using Playwright.</li> <li>• <b>Agile Development &amp; Collaboration:</b> Collaborated with developers using Agile methodology and managed tasks transparently through Rally boards.</li> <li>• <b>Infrastructure &amp; Cloud Migration:</b> Worked with DevOps to migrate services from AWS to Azure and <b>redesigned services to a serverless architecture.</b></li> <li>• <b>UI &amp; Frontend Updates:</b> Implemented UI fixes and upgraded Angular and React versions for compatibility and performance improvements.</li> </ul>

<b>Organization Name</b>	<b>Java R&amp;D Pvt. Ltd. (I-Tech s/w solutions)</b>
<b>Client Name</b>	<b>Experian</b>
<b>Project Name</b>	Credit Score and Fraud Detection System
<b>Project Duration (From &amp; To in Month/Year Format)</b>	6 Months (Dec/2020- May/2021)
<b>Role/Title</b>	Senior Software Developer
<b>Work Location</b>	Bhopal, Madhya Pradesh

<b>Project Description</b>	<i>Java, Spring based Micro-services verifying the credit score of the user if eligible for Credit card. Services like Prequel to detect the limits and background history using intelligence and past history FICO score. Detecting any kind of Fraud within the system.</i>
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>• <b>API Development &amp; Testing:</b> Developed REST APIs and integrated them with the UI. Implemented functional testing with JUnit and PowerMockito, along with integration tests and BDD for system validation.</li> <li>• <b>Team Management &amp; Agile:</b> Managed a team of 4 junior developers, clarifying tasks through Agile methodology and ensuring efficient collaboration.</li> <li>• <b>CI/CD &amp; Deployment:</b> Set up CI/CD pipelines using Jenkins for continuous integration and deployed applications using Docker images on AWS Registry.</li> <li>• <b>Monitoring &amp; Security:</b> Monitored service behaviour with the ELK stack and logging via Spring Sleuth. Managed Aurora RDS and DynamoDB for data storage, ensuring high-end security using Secret Manager, Kerberos, IAM roles, and token-based authentication.</li> </ul>
<b>Software / Special Tools</b>	Java 11, AWS services, JIRA, GITLab, Azure Board, Offset Explorer, Dbveaver, IntelliJ, postman, VS code, Pycharm
<b>Languages</b>	Java, Spring , HTML, CSS, Java Script, Bootstrap, Type Script, Angular

<b>Organization Name</b>	<b>Java R&amp;D Pvt. Ltd. (I-Tech s/w solutions)</b>
<b>Client Name</b>	<b>Fannie Mae</b>
<b>Project Name</b>	Orchestration Service
<b>Project Duration (From &amp; To)</b>	6 Months (june/2020-Dec/2020)
<b>Role/Title</b>	Senior Software Developer
<b>Work Location</b>	Bhopal, Madhya Pradesh
<b>Project Description</b>	<i>Java based Micro-services to verify the property documents Services for rental housing in market along with the history using <b>multi-part family business</b>.</i>

<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>• <b>API Development &amp; Testing:</b> Developed REST APIs and integrated them with the UI. Implemented functional testing with JUnit and PowerMockito, integration tests, and BDD for end-to-end system validation.</li> <li>• <b>CI/CD &amp; Deployment:</b> Set up CI/CD pipelines with Jenkins for continuous integration and deployed applications using Docker images on AWS Registry.</li> <li>• <b>Cloud &amp; Serverless:</b> Integrated AWS Lambda and serverless architecture for scalable and cost-efficient services.</li> <li>• <b>Spring Boot &amp; Multi-part Support:</b> Leveraged Spring Boot for API development, including handling multi-part requests and efficient resource management.</li> </ul>
<b>Software / Special Tools</b>	Java 11, AWS services, On-Prem Servers, JIRA, GITLab, Azure board
<b>Languages</b>	Java, Spring , HTML, CSS, Java Script, Bootstrap, Type Script, Angular, Python, NodeJs

<b>Organization Name</b>	<b>IDEMIA Augmented Identity</b>
<b>Client Name</b>	<b>T-mobile ,Viettel</b>
<b>Project Name</b>	Multi-IMSI
<b>Project Duration (From &amp; To in Month/Year Format)</b>	6 months ( june/2019 – jan/2020)
<b>Role/Title</b>	Software Developer
<b>Work Location</b>	Noida, Uttar Pradesh, India
<b>Project Description</b>	<i>SIM Card Applet allowing subscriber to switch carriers when the device move to new geographical area along with global IOT deployments.</i>
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>• <b>SIM Card Applet Development &amp; Testing:</b> Developed SIM card applets and performed basic testing by deploying to the SIM card. Conducted functional testing using UTE and implemented integration tests and BDD for system validation.</li> <li>• <b>Monitoring &amp; Optimization:</b> Monitored service behavior with ELK stack and Spring Sleuth logging. Optimized code to fit within the limited memory constraints of the smart card (KBs).</li> <li>• <b>Client Delivery &amp; Analysis:</b> Performed requirement analysis and ensured end-to-end delivery to clients.</li> </ul>
<b>Operating Systems</b>	SIM Card OS (internal to syscom)
<b>Hardware</b>	Smart Card microprocessor
<b>Software / Special Tools</b>	Kanban, Sharepoint, SIMON, UTE – testing Environment
<b>Languages</b>	Java-card, Java, JavaFX, Swings

<b>Organization Name</b>	<b>IDEMIA Augmented Identity</b>
<b>Client Name</b>	<b>Vonage</b>
<b>Project Name</b>	IMEI Tracker
<b>Project Duration (From &amp; To in Month/Year Format)</b>	3 months ( jan/2019 – may/2019)
<b>Role/Title</b>	Software Developer
<b>Work Location</b>	Noida, Uttar Pradesh, India
<b>Project Description</b>	<i>SIM Card tracing the last received IMEI using its file system.</i>
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>• Develop the SIM Card Applet along with the basic testing by deploying to SIM card.</li> <li>• Functional testing using frameworks like UTE to detect the functionality changes</li> <li>• Implementing the Integration test-case and BDD to test the complete system.</li> <li>• Set up the CI/CD using Jenkins for continuous integration.</li> <li>• Deploying the application using internal tools to the SIM card and check for the file system.</li> <li>• Implementing the code in optimised manner as the smart card memory is in KB's</li> <li>• Requirement analysis and end to end delivery to the clients.</li> </ul>
<b>Operating Systems</b>	SIM Card OS (internal to syscom)
<b>Hardware</b>	Smart Card microprocessor
<b>Software / Special Tools</b>	Kanban, Sharepoint, SIMON, UTE – testing Environment

## Training and Seminars

- Research work : <https://netml.github.io/>
- AWS Cloud Academy - 1 month

## Certifications

### Amazon Oct 2021 – Oct 2025

- Amazon Certified Associate Developer  
[https://www.credly.com/badges/2d42cb08-24c6-4050-ad21-cc71c65cf184/public\\_url](https://www.credly.com/badges/2d42cb08-24c6-4050-ad21-cc71c65cf184/public_url)

### Scrum.io Nov 2021- Lifetime

- Professional Scrum Master  
[https://www.credly.com/badges/6418a8d6-7d38-4da9-809a-4cf969229494/public\\_url](https://www.credly.com/badges/6418a8d6-7d38-4da9-809a-4cf969229494/public_url)

<b>Prior Work Experience Details</b>				
<b>Organization's Name</b>	<b>Designation</b>	<b>Dates of Employment</b>		<b>Location (City &amp; State)</b>
		<b>From (DD-MON-YYYY)</b>	<b>To (DD-MON-YYYY)</b>	
Capgemini	Consultant/B2	10 <sup>th</sup> May, 2021	August, 2023	Gurugram, Haryana
Java R&D Pvt Ltd	Senior Software Engineer	10 <sup>th</sup> Feb,2020	30 <sup>th</sup> April,2021	Bhopal, Madhya Pradesh
Idemia Augmented identity	Software Engineer	16 <sup>th</sup> March,2017	8 <sup>th</sup> Feb,2020	Noida, Uttar Pradesh

<b>Educational Record (In Reverse Chronological Order Starting Highest Degree)</b>				
<b>Course of Study</b>	<b>Specialization</b>	<b>Name of University</b>	<b>Address of University</b>	<b>Year of Completion</b>
Masters in Computer Science	Computer Science	University of Central Missouri	Warrensberg, Missouri, United States of America	2024
B-Tech Computer Science	Computer Science	Kurukshetra University	Kurukshetra University, India	2017