

Venkat Sai Prasanth Kunchanapalli

Email: kvsprasanth007@gmail.com | Ph.no: 9375361790 | LinkedIn: [linkedin.com/in/venkat-kunchanapalli](https://www.linkedin.com/in/venkat-kunchanapalli)

PROFESSIONAL SUMMARY:

- Highly skilled Java Full Stack Developer with over 6+ years of experience in designing, developing, and deploying AI-driven solutions and scalable microservices on GCP, AWS, and Azure. Proven expertise in Java, Python, and AI/ML frameworks like TensorFlow and PyTorch, with hands-on experience in NLP, OCR, and document processing using GCP's Document AI and Google Vision API.
- Expertise in Spring Framework (*Boot, Security, MVC, Cloud, Batch*), Hibernate/JPA, Python, Node.js, Express.js, and front-end frameworks (*ReactJS, Angular, jQuery, Bootstrap, TypeScript, JavaScript*).
- Hands-on experience with Cloud Platforms—AWS (*EC2, S3, RDS, Lambda, DynamoDB, CloudWatch, IAM, SQS*), Azure (*App Services, Databricks, Synapse, Cosmos DB*), GCP (*Document AI, Cloud Functions, Firestore*) and Red Hat OpenShift.
- Strong background in cloud-native development, utilizing containerization (Docker) and orchestration (Kubernetes) for microservices architecture.
- Proficient in developing RESTful APIs, GraphQL endpoints, and implementing real-time messaging systems using Apache Kafka and RabbitMQ.
- Experienced in CI/CD pipelines, implementing DevOps practices using tools like Jenkins, GitLab CI, and AWS CodePipeline.
- Hands-on experience in NLP, OCR, and document processing using GCP's Document AI and Google Vision API.
- Proficient in **ETL processes** using Java, ensuring data accuracy and integrity across diverse sources.
- Strong background in Database Management—*Oracle, Cassandra, MongoDB, PostgreSQL, MySQL, Redis*—and Big Data tools like *Hadoop, Spark, and Azure Data Factory*.
- Hands-on experience with AI/ML integration in Java applications, leveraging frameworks like TensorFlow and PyTorch for predictive modeling and NLP tasks, *real-time fraud detection*, and *Scikit-learn*.
- Implemented *n8n AI agents* for process automation, including GPT-powered email response systems and AI voice agents for enhanced customer interactions.
- Mentored a team of 5 junior developers, conducting regular code reviews and knowledge sharing sessions, resulting in a 40% increase in team productivity in Agile/Scrum environments.
- Proficient in developing secure applications, implementing OAuth 2.0/JWT authentication, and adhering to *Zero Trust Architecture principles*.
- Developed a blockchain-based supply chain tracking system, enhancing transparency and reducing fraud incidents by 70%.
- Proficient in writing clean, maintainable, and well-documented code, with a strong emphasis on software design patterns and SOLID principles.
- Experience in Business Analytics: Data Mining, Data Visualization (Power BI, Tableau, AWS QuickSight), Statistics, Operations Analytics, and Corporate Finance for strategic decision-making.
- **Quantum Computing**: Basic understanding of quantum computing principles and their applications.

Core Competencies: Full Stack Development (Java, Spring Boot, React) , Artificial Intelligence & Machine Learning (NLP, Predictive Modeling), Business Analytics & Data Visualization (Tableau, Power BI) , Cloud Computing (AWS, Azure, Kubernetes) , Microservices Architecture & DevOps (Docker, CI/CD), Real-Time Data Processing (Kafka, Redis).

Technical Skills:

Languages	: Java 17, Python, JavaScript, TypeScript, SQL, PL/SQL, R
Frameworks & Libraries	: Spring Boot, Spring Security, Spring MVC, Hibernate , JPA, TensorFlow , PyTorch, Scikit-learn, ReactJS, AngularJS, Node.js, Express.js.
Web Technologies	: HTML5, CSS3, Bootstrap, jQuery, RESTful APIs , GraphQL , AJAX, JSON, XML,
Cloud Platform:	: AWS(EC2, S3, RDS, Lambda, IAM, SageMaker), Azure (App Service, Databricks, Synapse, Cosmos DB), GCP.
Databases	: Oracle, MySQL, PostgreSQL , MongoDB, Cassandra , Redis , DynamoDB , Elasticsearch
DevOps & Tools	: Docker, Kubernetes, Jenkins, Terraform, GitHub/GitLab, Ansible, Prometheus, ELK Stack , JIRA, Confluence, Postman, Swagger.
Big Data /Analytics	: Azure Data Factory, Databricks, Hadoop, Spark, Power BI, Tableau, AWS QuickSight, Apache Kafka, Apache Spark, ETL, R, Artificial Intelligence, NLP, Zero Trust Architecture.

AI/ML & Data Science	TensorFlow, PyTorch, Fraud Detection, LLM's, LangChain, Data Integration, Data Modeling, Data Warehousing, Data mining, Chatbot, AI Agents, RAG
Methodologies	Agile/Scrum, CI/CD, Event-Driven Architecture, Test-Driven Development (TDD), CMMI Level 3.
Document Processing	OCR (Tesseract, Google Vision API, AWS Textract), PDF parsing , Document AI (GCP) .
Business Analytics	Data Science , Big Data Analytics, Operations Analytics , Data-Driven Decision-Making, Financial Forecasting, Predictive Analytics , Data Visualization, Statistical Analysis.
Data Analysis	Power BI, Tableau, Databricks, AWS QuickSight, ServiceNow, LLMs (Large Language Models), Excel (Pivot Tables, VLOOKUP), Statistical Analysis (SPSS, SAS).

PROFESSIONAL EXPERIENCE:

University of Dayton,

Jul 2023 – Aug 2023

USA (TA & AI Engineer):

- Developed an AI-based system using GCP's Document AI and Google Vision API to automate document scanning, text extraction, and indexing for legal documents.
- Improved data processing accuracy by 30% and reduced manual workload by 40%.
- Emphasize any GCP projects, especially with Google Cloud Functions, Firestore, or GCP AI tools.
- Move AI-powered projects (like the chatbot and fraud detection microservice) higher up in the Projects section.
- Built an AI-driven microservice using TensorFlow, Spring Boot, Kafka, and Redis to detect fraudulent transactions in real-time, improving security and efficiency.
- Experienced with OCR tools like Tesseract, Google Vision API, or AWS Textract, highlight it in the **Technical Skills** and **Projects** sections.
- Integrated Google Cloud Functions and Firestore to streamline real-time data processing and enhanced fraud detection accuracy by 20%
- Deployed **RAG (Retrieval-Augmented Generation)** applications, increasing data accessibility by 25% for content retrieval tasks.
- Built **AI agents** with **LangChain**, enhancing customer interactions and business processes.
- Applied **AI/ML**, including **predictive modeling** and **RAG**, to deliver actionable insights with 30% better decision accuracy.
- Emphasize your Google Cloud Platform (GCP) knowledge, including Google Cloud Functions, App Engine, Firestore, and document AI tools if applicable
- Implemented **Zero Trust Architecture** with **MFA** and encryption, strengthening data security.

Environment: TensorFlow, PyTorch, and NLP tools like SpaCy, NLTK, or Hugging Face, LangChain, Python, SQL, RAG (Retrieval-Augmented Generation), MFA, Git, Agile.

Mphasis Technologies,

Jul 2022 – Mar 2023

India (Software Engineer):

- Migrated legacy banking systems to microservices using **Spring Boot**, enhancing scalability and reducing system downtime by 30%.
- Developed secure **RESTful APIs** and integrated payment gateways, ensuring **financial data security** and cutting transaction latency.
- Implemented **OAuth 2.0** and **JWT** authentication, achieving **PCI DSS** and **regulatory compliance** for secure transactions.
- Optimized **ETL processes** with **Java** and **Cassandra**, improving data accuracy to support **KYC (Know Your Customer)** and **risk assessment**.
- Transitioned core services to **AWS Lambda** and **S3** for serverless architecture, reducing infrastructure costs by 20%.
- Utilized a wide range of **AWS** services, including EC2, EMR, Glue, Glue Catalog, S3, Athena, Redshift, DynamoDB, Kinesis, Lambda, CloudFormation, EKS, CloudWatch, SNS, and SQS to support robust data migration processes
- Deployed **Kafka** for real-time **AML (Anti-Money Laundering)** and fraud detection, accelerating anomaly identification by 15%.
- Built responsive **React.js** dashboards, boosting customer engagement with real-time **financial data** insights.
- Developed business logic using **Python on the Django Web Framework**, managing data loading into a Cassandra cluster to support various banking operations

- Managed **Agile** workflows with bi-weekly sprints and daily SCRUM, aligning deliverables with client needs.

Environment: Java 17, Python, Spring Security, AWS Lambda, S3, Kafka, Spring Boot, ReactJS, web services, REST APIs, JWT, OAuth, Hibernate, RabbitMQ, Redis, SPA's, jQuery, PIVOTAL CLOUD FOUNDRY (PCF), Docker, Kubernetes, SQL, XML, SVN, Flex, Dojo, Splunk, Swagger, Cassandra, Cucumber, Angular, MongoDB, ANT, Azure.

Swiss Mobi Software Technologies

Mar 2019 – Jun 2022

India (Software Engineer):

- **Involved** in the Technical Design, which included, defining the screens, validations, error messages, coding standards, etc.
- **Migrated legacy monolithic banking applications** into **microservices architecture** using **Spring Boot**, improving system performance by 20%.
- **Developed and Integrated payment** processing platforms like **PayPal** and **Apple Pay**, involved on the modules Enroll, Account Overview, and Funds Transfer.
- Developed RESTful web services using Hibernate, cutting payment processing time by 20%.
- **Implemented RabbitMQ** for **messaging** and **Redis** for **caching** to enhance system performance and responsiveness.
- **Designed** and built **Single Page Applications (SPAs)** with React.js, ensuring cross-browser compatibility and responsive UIs.
- **Collaborated** with frontend teams to **develop dynamic and user-friendly interfaces** using JSP, HTML5, CSS3, AngularJS, Bootstrap, and jQuery.
- Migrated legacy applications to microservices on GCP using Kubernetes and Docker, improving system scalability.
- **Automated** build, testing, and deployment processes using Jenkins, streamlining **CI/CD pipelines** and reducing deployment time **by 25%**. Implemented OAuth 2.0 and JWT for secure API communication in compliance with CMMI Level 3 standards.
- **Conducted** unit testing using **JUnit** and **Mockito**, and performance testing using **JMeter**. Monitored application health with **Splunk** and tracked issues via **JIRA**.
- **Enhanced team productivity by 15%** by introducing GitHub for collaborative development, streamlining code reviews for a 5-person team.
- **Supported** deployments on **Jetty server** and **ensured smooth integration** with existing systems.

Environment: Java, J2EE, Spring MVC, JSP 2.0, Core Java, Spring Boot, web services, REST APIs, Hibernate, RabbitMQ, Redis, SPA's, ReactJS, HTML5, CSS3, AngularJS, Bootstrap, jQuery, GCP, PIVOTAL CLOUD FOUNDRY (PCF), Docker, Kubernetes, Junit, Mockito, JMeter, Splunk JIRA, Jetty, SQL, GitHub.

Internship Experience:

Business Analytics Intern — *Choice hotels*

Aug 2023 – Feb 2024 | Tools: Power BI, SQL, Excel

- **Developed** interactive **Power BI dashboards** integrating **SQL data sources** to visualize key performance metrics, enabling data-driven decisions for the executive team.
- **Automated** data extraction and transformation processes, reducing manual reporting time by **30%**.

Java Development Intern — *SpectraMedix,*

Jul 2018 – Apr 2019 | Tools: Java, Spring Boot, MySQL, Junit

- **Designed and optimized** Java-based applications, improving system performance and reducing API response times.
- **Built** RESTful APIs using **Spring Boot**, enabling data integration between front-end and back-end systems.

Projects:

AI-Powered Chatbot Development using Spring Boot

- **Description:** Deployed services on GCP using Cloud Functions and Firestore, streamlining data processing workflows. Developed chatbots using Dialogflow CX and integrated with backend services via RESTful APIs.
- **Skills:** *Java, Spring Boot, Artificial Intelligence, Google Vision API, chatbot development, machine learning, SQL.*

AI-Driven Predictive Analytics for Sales Performance

- **Description:** Developed a predictive analytics model to forecast sales performance for an online retailer, using machine learning algorithms (e.g., **random forests**, **support vector machines**) to predict demand and optimize inventory management.

Skills: *Predictive modeling, machine learning, Python, time series analysis.*

AI-Enhanced Fraud Detection Microservice

- **Description:** Built an AI-driven microservice using **TensorFlow**, **Spring Boot**, **Kafka**, and **Redis** to detect fraudulent transactions in real-time, improving security and **efficiency**.
- Designed a scalable architecture with **ML**-based anomaly detection and event-driven processing.

Skills: *TensorFlow, Spring Boot, Kafka, Redis, Python, AI/ML.*

Certifications:

- **Advanced Snowflake**
Certified in advanced features and functions of Snowflake for data warehousing and cloud-based analytics.
- **Artificial Intelligence and Machine Learning**
Certified in AI and ML concepts, including supervised and unsupervised learning, deep learning, and real-time data processing.
- **TensorFlow Developer Certificate**
Proven skills in building ML models using TensorFlow, covering deep learning and NLP techniques.
- **AWS Certified Solutions Architect – Associate**
Expertise in designing scalable, fault-tolerant cloud applications on AWS, focusing on microservices and data solutions.
- **Google Data Analytics Professional Certificate (Great for foundational data skills)**
Covers data wrangling, SQL, data visualization, and building data-driven insights using Google tools.
- **Advanced DevOps Engineer**
Mastery in CI/CD pipelines, cloud infrastructure automation, and DevOps best practices.

Achievements:

- Implemented OCR with Google Vision API to automate document extraction, reducing manual processing by 30%.
- Reduced data breach risk by 30% by Implementing Zero Trust Architecture with continuous MFA and encryption, securing 10TB of sensitive data.
- **Improved Document Processing Accuracy:** Enhanced OCR accuracy by 25% using Google Vision API and GCP Document AI.
- Improved fraud detection accuracy by 30% by integrating Apache Kafka for real-time data streaming, processing 100,000+ transactions daily.
- **Accelerated Deployment:** Reduced deployment time by 30% with automated CI/CD pipelines on Azure DevOps.
- Accelerated project delivery by 15% by streamlining Agile workflows and JIRA tracking, completing 8+ sprints ahead of schedule.
- Drove 30% revenue growth by deploying AI-powered predictive sales models, analyzing 500k+ data points for strategic insights.

EDUCATION:

Master's - Business Analytics

Trine University, USA | May 2025 | **GPA: 3.9**

Bachelor's - Electrical and Electronics Engineering

[JNTU - K], India | Apr 2018