Kranthi Kumar Pedamajji

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PROFESSIONAL SUMMARY

Versatile Full Stack & Data Engineer with 3+ years of experience building scalable web applications and end-to-end data solutions. Proficient in Python, JavaScript, .NET, and SQL for both application development and data workflows. Skilled in data analysis, machine learning (Scikit-learn, TensorFlow, PyTorch), and data engineering with hands-on experience in ETL pipelines, API integration, and cloud-based data warehouses (Snowflake, Azure, GCP, Timestream). Experienced in microservices architecture, CI/CD pipelines, and deploying applications on Azure. Adept at customer segmentation (RFM, K-Means, DBSCAN) and building interactive dashboards with Tableau. Strong advocate of Agile methodologies, delivering reliable, data-driven products in fast-paced, cross-functional environments.

EDUCATION

Master's in Data Science Aug 2023 – present | Glassboro, NJ
Rowan University Glassboro
GPA: 3.3

Bachelor of Technology in Computer Science and Technology Jun 2017 – May 2021 | Chennai, India
Bharath University
GPA: 3.5

PROFESSIONAL EXPERIENCE

Quanti LLC Jun 2025 – Present | Philadelphia
Intern Software Engineer
- Developed and integrated Google AdSense and Meta Ads into the product to enable new revenue streams, applying regex parsing and NLP preprocessing to clean and analyze ad campaign data.
- Designed and implemented the backend using Python (FastAPI), ensuring scalable, secure, and high-performance APIs to support data-driven applications.
- Built a responsive and interactive frontend with Vue.js, improving advertiser experience and overall product usability.
- Designed and managed PostgreSQL schemas and optimized queries for reliable data storage; also gained experience working with NoSQL solutions like DynamoDB and MongoDB.
- Utilized AWS services (S3, Glue, Redshift, Lambda, CodeCommit) for data ingestion, orchestration, and cloud-native deployments, while also gaining exposure to Azure and GCP.
- Deployed and maintained ML models in production environments using AWS SageMaker and Docker containers, ensuring scalability and performance.
- Implemented NLP workflows (tokenization, stemming, lemmatization) for large-scale text data processing and insights.
- Enhanced CI/CD pipelines for faster, reliable releases and improved system scalability through cloud-native strategies.
- Collaborated with cross-functional teams including data scientists, software engineers, and business analysts, driving projects from requirements gathering to deployment.

CitiusTech Healthcare Technologies and Private limited May 2021 – Jun 2023 | Hyderabad, India
Software Engineer
- Developed and maintained scalable web applications using .NET Core (MVC) architecture for backend services and React for dynamic, component-based frontends.
- Designed and implemented RESTful APIs to support seamless integration between backend services and frontend user interfaces.
- Improved application efficiency by 25% through modular design, performance tuning, and clean code practices.
- Managed the full software development lifecycle, including requirement analysis, sprint planning, development, testing, and production deployment.
- Deployed applications on Microsoft Azure, configured CI/CD pipelines, and automated releases to reduce deployment time by 25%.
- Enhanced database performance and integrity using advanced SQL tuning, stored procedures, and real-time data fixes—boosting data-handling efficiency by 45%.
- Wrote unit and integration tests using NUnit to ensure code quality, reliability, and low defect rates in production.
- Resolved security vulnerabilities identified by tools like Splunk, Checkmarx, and Snyk, improving application security posture.
- Migrated legacy monolithic systems to microservices, enhancing scalability, deployment flexibility, and system reliability.
- Contributed to Agile Scrum processes using Jira for sprint tracking and user story management, ensuring consistent delivery of features.
- Collaborated with cross-functional teams to align software features with business needs and user experience goals.
- Used Git for version control and team collaboration, ensuring stable and traceable code deployments.
- Created YAML configurations to automate regression testing and continuous integration processes.
- Gained domain experience in HL7 and FHIR standards, enabling healthcare data interoperability and secure system integration.

Technologies: .NET Core, SQL, React, JavaScript, REST APIs, Azure, CI/CD, Git, YAML, HL7, FHIR, Microservices, NUnit, Jira

Tata Strive Sep 2020 – Apr 2021 | Remote
Software Intern
- Built a fully functional and responsive shopping website using HTML, CSS, and JavaScript, applying industry best practices in UI/UX design.
- Integrated dynamic features and interactivity using JavaScript to enhance user experience and functionality.
- Gained hands-on experience with graphic editing and layout design using Adobe Photoshop to create visually appealing assets for the application.
- Deployed the application on Microsoft Azure, demonstrating foundational skills in cloud hosting, DNS management, and deployment pipelines.
- Strengthened debugging, troubleshooting, and cross-browser compatibility testing skills to ensure consistent performance across platforms.

PROJECTS

Predictive Performance Analysis of NFL Running Backs Oct 2024 – Dec 2024
- Conducted a predictive analysis of NFL running backs' performance using historical data, focusing on key metrics such as rushing yards, attempts, and touchdowns.
- Developed and deployed machine learning models, including Random Forest and Gradient Boosting, achieving 15% higher prediction accuracy in identifying performance drivers.
- Leveraged deep learning to capture non-linear relationships in player performance data, improving the robustness of predictive insights.
- Integrated NLP techniques to analyze sports news and social media sentiment, enhancing predictive features for player performance analysis.
- Delivered actionable insights to optimize player utilization and game strategies, showcasing the practical application of data analytics in sports.

Technologies Used: Altair AI, RapidMiner, Tableau, Python

Claims Management System Jul 2021 – Aug 2021
- Designed and developed a full-stack claims management system to streamline healthcare workflows and improve claims processing efficiency.
- Built a secure and scalable backend using .NET Core and SQL Server, handling sensitive healthcare data with high performance and reliability.
- Implemented role-based access control, data validation, and logging to ensure secure and accurate claims processing, aligning with healthcare data handling best practices.
- Developed a responsive and user-friendly Angular frontend, reducing data entry errors and enhancing user experience.
- Deployed the application on Google Cloud Platform (GCP), ensuring scalability, high availability, and seamless cloud integration.

Technologies Used: .NET Core, SQL Server, Angular, Google Cloud Platform (GCP), RESTful APIs, Git

Big Data Analytics Project Feb 2024 – Apr 2024
- Designed and implemented a Big Data processing solution using Apache Cassandra to manage and query large volumes of distributed data efficiently.
- Focused on scalability and high availability by leveraging Cassandra's decentralized architecture for data ingestion and retrieval.
- Developed and demonstrated real-time data handling capabilities with use-case-driven queries for faster insights and analytics.
- Visualized key insights through interactive dashboards and explained system architecture in a detailed video walkthrough.
- Gained hands-on experience in managing NoSQL databases, data modeling, and tuning for performance optimization

Technologies Used: Apache Cassandra, NoSQL, Data Modeling, Tabluea, Python

RFM Model based clustering analysis Aug 2024 – Oct 2024
- Applied the RFM (Recency, Frequency, Monetary) model to segment customers into meaningful clusters using K-Means clustering, leading to 20% improved marketing personalization and customer retention.
- Analyzed customer behavior using Python, Pandas, and RapidMiner and generated actionable insights to optimize marketing strategies.
- Visualized clustering results using Tableau and Altair AI, ensuring comprehensive analysis and data-driven decision-making.

Technologies Used: Python, Pandas, Altair AI, RapidMiner, Tableau

VAST CHALLENGE 2018 MC3 Sep 2023 – Dec 2023
- Developed a real-time data visualization project using Tableau and Python libraries like Matplotlib and Seaborn to identify suspicious patterns among employees based on calls, emails, meetings, and purchases.
- Utilized advanced data manipulation techniques with Pandas, NumPy, Chart.js, and D3.js to process and visualize large datasets.
- Successfully detected suspicious activity patterns, contributing to a 30% improvement in anomaly detection and risk assessment.

Technologies Used: Tableau, Python, Matplotlib, Seaborn, Vscode, Pandas, NumPy, Chart.js, D3.js

Cloud-Based Data Warehouse Implementation using Snowflake
- Designed and implemented a scalable cloud-based data warehouse solution for a healthcare client using Snowflake, enabling efficient data storage, processing, and analytics.
- Integrated structured and semi-structured data (JSON, CSV) into Snowflake, improving data accessibility and query efficiency by 30%.
- Automated ETL pipelines using Azure Data Factory and cloud services, ensuring seamless data processing and reducing manual effort by 40%.
- Enforced secure data sharing and compliance using Snowflake's native functionalities, with encryption, access controls, and multi-factor authentication.

Technologies Used: Snowflake, SQL, AWS, Python, Tableau, ETL tools

Dual Encryption in ATM machines using MEMS (Gyroscopic Sensor) Jan 2021 – May 2021
- Developed an embedded system-based dual encryption mechanism to enhance ATM security using MEMS (Gyroscopic Sensor) and a GSM module.
- Captured and verified registered user gyroscopic movements for added security, ensuring 99% secure transactions.
- Implemented logic in C language for real-time decision-making in embedded systems, improving ATM security and reducing potential fraud.

Technologies Used: Embedded Systems, MEMS, GSM Module, C Programming

Symptom Analysis for Monkeypox Diagnosis
- Analyzed patient health data to identify key symptoms and comorbidities of monkeypox outbreaks.
- Applied machine learning models, including Decision Trees, Logistic Regression, and Clustering, to improve diagnostic accuracy by 25%.
- Identified high-impact symptoms (e.g., fever, rash) and provided actionable insights for enhancing symptom-based diagnostic tools and healthcare training.
- Demonstrated expertise in health data preprocessing, exploratory analysis, and predictive modeling, contributing to improved public health strategies.

Technologies Used: Python, RapidMiner, Tableau, Decision Trees, Logistic Regression

PROFESSIONAL SKILLS

Python • C# • .Net Core • Data Visualization (Matplotlib, Seaborn, Plotly) • Machine learning Algorthims • Snowflake • AWS • SQL Server • Angular • SQL • .Net Framework • FHIR • Visual studio • HL7 • IOT • Git • Jira • Postman • Checkmarx • Snyk • Splunk Enterprise Security

CERTIFICATATIONS

Python programming • Data structures and algorithms • .Net Framework and .Net Core • Angular • SQL

LANGUAGES

English — fluent (speaking, reading, writing) • **Hindi** — intermediate (speaking, reading), basic (writing) • **Telugu** — Native