

KERIM TRICIC

Riverside, California | ktric001@ucr.edu | [Linkedin.com/in/kerim-t-2b8214133](https://www.linkedin.com/in/kerim-t-2b8214133)

PROFILE

Accomplished Senior Data Engineer and Technical Lead with a proven track record in developing scalable data infrastructures and advanced analytics systems to drive business intelligence and operational efficiency. Expert in designing and implementing data solutions, enhancing data accessibility and reliability across various industries including gaming, cybersecurity, and education.

Skilled in leading development projects, adhering to best practices in data architecture and system integration. Demonstrated ability to innovate and optimize data workflows, reducing costs and improving system performance. Adept at managing cross-functional teams and projects. Recognized for exceptional abilities in data modeling, ETL processes, and real-time data processing, contributing to substantial improvements in data-driven decision-making and operational agility.

Data Architecture	AWS Implementation	Solutions Architecture
Machine Learning	Predictive Modeling	Client Acquisition
Real-Time Processing	Data Pipeline Development	Performance Analysis
Data Validation	Strategic Partnerships	Stakeholder Engagement

CORE COMPETENCIES

- ❖ **Data System Scalability:** Engineered robust, scalable data infrastructures at Riot Games to support comprehensive analytics, machine learning models, and real-time data processing, significantly enhancing gaming experiences.
- ❖ **Advanced Data Engineering:** Developed and launched complex data management systems and predictive models at Adyton PBC and Torchlight, facilitating large-scale data ingestion, analysis, and improved cybersecurity measures.
- ❖ **Strategic Project Leadership:** Led key technological projects at Adyton PBC, advancing digital transformation initiatives, and managed significant construction projects at Metro Builders & Engineers Group.
- ❖ **Innovative Data Solutions:** Initiated groundbreaking data validation architectures and real-time analytics platforms at Riot Games and iLovePDF, optimizing data accuracy and business intelligence capabilities.
- ❖ **Performance Optimization:** Designed efficient data pipelines and ETL processes across multiple roles, reducing operational costs and enhancing system reliability by integrating cutting-edge technologies like Databricks, AWS, and Apache Kafka.

PROFESSIONAL EXPERIENCE

RIOT GAMES, Senior Data Engineer

01/2022 – Present

Developed and maintained data models and ETL processes handling vast and varied data sources to enhance player experiences and game design. Create scalable data systems that support extensive analytics, machine learning models, and real-time data processing. Integrated advanced data validation architectures to ensure high data quality and reliability.

- Designed and implemented efficient data pipelines using Databricks, saving \$3 million in annual compute costs.
- Established rigorous unit testing frameworks for new data systems, increasing system reliability by 40%.
- Initiated the development of a data validation architecture through integration with NewRelic.
- Developed a generative AI tool for code reviews which tied for first place in Riot’s internal hackathon and is now widely adopted across the company.

ADYTON PBC, Senior Technical Lead and Senior Solutions Architect

02/2024 – 10/2024

Led the development of advanced technological projects to support digital transformation and operational efficiency in security and defense. Created real-time data pipelines that provided immediate insights into user behavior, significantly improving data-driven responsiveness and tactical planning.

- Engineered and launched a data lake and analytics platform incorporating AWS services like Postgres and developed an optimized ETL pipeline, facilitating large-scale data ingestion and complex analysis.
- Developed predictive models that successfully identified customer churn, leveraging AWS services such as RDS, S3, and Athena to identify high-risk users and enable proactive retention efforts.

TORCHLIGHT, Senior Data Engineer

04/2021 – 03/2024

Designed and managed advanced security solutions to implement a high precision geofencing system. Advanced comprehensive capabilities in managing location-based data securely and efficiently.

- Engineered and implemented a ArcGIS geofencing system, integrating geospatial data sources, satellite imagery, and real-time tracking to create virtual perimeters around sensitive locations.
- Administered and optimized web behavior analysis tools to sift through vast amounts of CDN data, Integrating geospatial data sources with satellite imagery and real-time tracking to enhance the system's reliability.

THE NEW SCHOOL, Senior Technical Lead

07/2022 – 01/2023

Managed cybersecurity and provided technical solutions at a diverse academic community, supporting the university's mission to promote innovative problem-solving and positive change.

- Spearheaded cybersecurity initiatives and delivered technical solutions for the security and functionality of IT systems.

ILovePDF, Apache Kafka Developer

03/2022 – 08/2022

Developed high-performance real-time analytics tools to support and enhance a suite of online PDF management tools such as merging, splitting, and converting files to a global user base. Engineered and maintained systems designed for massive data handling, integrating innovative cloud technologies to enhance operational efficiency and reduce costs.

- Built a real-time analytics ingestion tool from end-to-end with clickstream data to support strategic business decisions.
- Achieved a throughput of 3 million records per hour by developing a clickstream analytics platform, ensuring data was efficiently processed and stored for short-term retention.
- Implemented a cost-effective solution using AWS technologies, including Kinesis, Lambda, and Timestream, to create an end-to-end pipeline that optimized data flow and accessibility.
- Facilitated data visualization and analytics by integrating the platform with Grafana for real-time monitoring and reporting.

THE NEW SCHOOL, Data Lake Developer

01/2021 – 07/2022

Utilized AWS Big Data technologies to manage confidential university data and services. Ensured secure and scalable data management.

- Engineered and optimized data ingestion and curation processes using Apache Kafka and Spark, improving the storage and accessibility of massive data sets in an efficient and easily consumed data format.

CUSTOMERS.AI, Data Engineer Consultant

01/2022 – 06/2022

Optimized digital interactions through advanced data-driven strategies and analytics. Collaborated with business analysts to develop and optimize reports critical for strategic decision-making and investor presentations.

- Designed and implemented a sophisticated internal calculations notebook that tracked vital business metrics such as Monthly Recurring Revenue (MRR), Customer Lifetime Value (LTV), and churn rates.
- Ingested data from multiple SaaS platforms to build an ETL workflow, enhancing business intelligence using PowerBI.

SIDEWALK TECHNOLOGIES, Data Engineer

01/2022 – 04/2022

Engineered data solutions utilizing advanced tools to enhance data process efficiency and reduce operational costs.

- Refactored AWS Glue jobs to address known errors and enhance system reliability.
- Upgraded data processing jobs to the latest version of Delta Lake for improved functionality.
- Reduced data processing costs through strategic DPU optimization and efficient partition projecting.

DTSN Inc., Apache Spark/Airflow Developer

10/2021 – 04/2022

Provided advanced data engineering solutions, utilizing cutting-edge technologies to deliver high-quality consultancy services. Advised on the implementation and management of best big data practices.

- Enhanced client's data processing capabilities through the tailored development of Spark frameworks.
- Improved data workflow management by implementing robust Airflow DAGs, ensuring optimal data orchestration.
- Developed Apache Spark frameworks to facilitate efficient big data processing.
- Created and managed Airflow Directed Acyclic Graphs (DAGs) to orchestrate and monitor data workflows.

VALERO ENERGY CORPORATION, Data Engineer

04/2021 – 03/2022

Developed user-friendly front-end applications to facilitate data entry by non-technical staff. Refined and optimized Python scripts to improve code scalability and reusability.

- Designed and implemented ETL (Extract, Transform, Load) processes to populate data warehouse solutions, enhancing data accessibility for analytics tools like Tableau.
- Standardized unstructured data into SQL databases to boost business intelligence capabilities.
- Engineered an end-to-end data ingestion system using Apache Kafka for real-time data collection from IoT devices in critical refinery operations.

MARATHON PETROLEUM CORPORATION, Project Cost Control Specialist

11/2019 – 01/2021

Managed a complex Apache Kafka-powered service to ingest and store IoT sensor data for critical refinery infrastructure monitoring. Developed actionable reports from large unstructured data sets, significantly reducing unnecessary costs through strategic decisions. Engaged regularly with both executive and coordination teams to discuss findings and implement cost-saving measures.

- Assisted in the development and management of SQL databases for processing massive sets of unstructured data
- Created advanced Tableau reports to visualize project lifecycles and forecast annual burndown rates, incorporating alternative forecasting models to enhance project management and financial planning.

UNIVERSITY MECHANICAL, Lead Project Engineer

01/2019 – 11/2019

Enhanced workflow efficiency among a team of eight, improving project delivery timelines through innovative design and efficient project execution. Formulated a data retention strategy that supported both short-term and long-term data storage needs.

- Managed database architecture using Kafka and Spark for data ingestion on on-prem server architecture
- Developed machine learning models using Python to preprocess document data, aimed at improving predictive analytics for project management
- Drafted and analyzed reports using Excel and Power BI to drive cost efficiency and billing accuracy.
- Achieved a \$250K year-over-year cost reduction through strategic data analysis and operational adjustments.

EDUCATION

University of California | Riverside

Bachelor's Degree in Computer Science

2019

LICENSES & CERTIFICATIONS

- ❖ AWS Certified Cloud Practitioner: Issued by Amazon Web Services (AWS) July 2021 – Expires Jul 2024
- ❖ SolidWorks
- ❖ AutoCAD

TECHNICAL SKILLS

Tools: ETL, BI and Data Analysis, Power BI, DataStage, SQL, Tableau, Excel, Apache Spark

Data Engineering: Spark, Kafka, Pandas, Airflow, DataBricks

Machine Learning: PyTorch, TensorFlow, CrewAI, LangChain, LangGraph

Databases: AWS Redshift, PostGres, MS SQL, Server, MongoDB

Programming and Scripting Languages: PL SQL, Java, Python

Project Management: JIRA, Versioning & Scheduler, GitHub

Languages: Bosnian, German, English