

TONIS TIGANIK

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EDUCATION

Bachelor's Degree in IT Systems Development

Estonian IT College

Tallinn, Estonia

2007

EXPERIENCE

Backend Engineer, Data Streaming Engineer

High-Mobility

August 2018 – Present

Remote

- Developed a backend system for vehicle data management using Kotlin, implementing MQTT communication and PostgreSQL database integration.
- Architected and implemented a service that streams data from thousands of Ford vehicles using Ford SDK, gRPC, and Kafka.
- Implemented a data sink solution for Kinesis streams, enabling horizontal scaling and robust load testing.
- Created a service that streams data from PSA vehicles, utilizing AWS Kinesis and internal Kafka for data management.
- Designed and built RESTful APIs for car owner access management with secure authentication mechanisms.
- Ensured code quality through automated testing, CI/CD practices, and comprehensive documentation.

Android Developer

High-Mobility

August 2014 – August 2018

Remote

- Developed an Android Automotive Data Observing App that reads car data and uploads it to the server via MQTT.
- Created sample applications showcasing the integration of HMKit Android with vehicle telematics.
- Contributed to open-source Kotlin/Java libraries for vehicle connectivity and data management.

iOS Software Engineer

Cannedapps

August 2011 – August 2014

Tallinn

- Developed telematics applications for Jaguar Land Rover and Fiat, utilizing Swift for complex UI and navigation logic.
- Worked on concepts for car dashboard apps and a weather forecast app for Android.

PROJECTS

Connected Car Backend System | *Kotlin, Ktor, MQTT, PostgreSQL*

August 2019 – August 2021

- Developed a comprehensive backend solution for car data storage and management.
- Implemented hierarchical data structure for user and vehicle data management.
- Integrated MQTT protocol for real-time vehicle data streaming and built secure authentication mechanisms.

Ford Car Data Streaming Service | *Kotlin, gRPC, Kafka*

May 2022 – Nov 2024

- Architected a service that streams data from thousands of Ford vehicles using Ford SDK.
- Implemented horizontal scaling and fault tolerance with DynamoDB checkpointing.
- Created monitoring dashboards with Grafana and error handling with Sentry.

PSA Car Data Streaming Service | *Kotlin, AWS Kinesis, Kafka*

Apr 2022 – May 2024

- Implemented a service that streams data from PSA vehicles, consuming Kinesis data and forwarding it to Kafka.
- Ensured horizontal scaling and robust monitoring through Grafana and Sentry.

Kinesis Data Sink | *Kotlin, AWS Lambda, Terraform*

April 2021 – Nov 2024

- Developed a streaming solution for Kinesis streams with horizontal scaling capabilities.
- Implemented robust load and fault-injection tests for smooth integration.

Audit-Hero | *Node.js, React, AWS*

August 2022 – November 2024

- Architected a scalable micro-frontends solution for a web app aggregating security audit reports.
- Developed a Node.js backend with AWS serverless architecture for data scraping and processing.
- Implemented a payment system for users to buy tokens for LLM queries.

TECHNICAL SKILLS

Languages: Kotlin, TypeScript, Java, Swift, JavaScript, SQL (Postgres)

Frameworks: Ktor, React, Node.js, Android SDK, AWS Lambda

Developer Tools: Git, Docker, Terraform, Kubernetes, Grafana, Sentry

Libraries: MQTT, gRPC, Kafka, PostgreSQL