

Alexander Strzelecki

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I'm a senior software engineer specializing in scalable data platforms, event streaming, and backend services. My work spans across finance, fintech, and industrial domains in both individual contributor and managerial roles.

Work Experience

Oct. 2022 – **Senior Software Engineer**, *Square / Block*, NYC

- Sept. 2025 ○ Designed and developed a management plane system using Kotlin and Python for customer onboarding and data infrastructure deployment, hosted on Kubernetes to handle deployments, configuration, and monitoring of thousands of instances via UI and API.
- Scaled the CDC platform underpinning Square's OLAP data warehouse/lake to support hundreds of millions of daily record changes, implementing first-class support for MySQL, Snowflake, and DynamoDB, with future provisioning for Iceberg integration.
- Modernized an eventing platform from legacy self-hosted Kafka to Confluent Kafka, ensuring 99.99% uptime throughout the transition for petabyte scale traffic volume, with subsequent addition of Flink stream processing clusters.
- Led a migration with an external vendor to move from manually sharded MySQL to managed Vitess, proactively identifying and resolving edge cases in production environments.

Oct. 2019 – **Software Engineer**, *GKN Aerospace*, CT

- Sept. 2022 ○ Aggregated and integrated new sensor and IoT data from industrial production equipment using OSS, manufacturer SDKs, and custom interfaces developed in C++ and Python.
- Led the internal development of robotic inspection systems to identify defects in metallic components, collaborating with internal teams and external universities.
- Designed batch data pipelines for manufacturing and finance domains to enable production and repair analytics.

July 2017 – **Automation Engineer**, *GKN Aerospace*, CT

- Oct. 2019 ○ Wrote automation programs for manufacturing systems (robots, computer vision, motors) to streamline aerospace component creation and processing.
- Designed, specified, and oversaw significant capital projects in collaboration with internal teams and external partners.

Skills

Languages Python, Java/Kotlin, Go, SQL, Vue.js

Technologies / Kubernetes, Kafka, Flink, AWS/GCP, Docker, Terraform / IaC

Frameworks AI Tooling (e.g. Bedrock, Claude), Iceberg, Airflow/Prefect

Education

Sept. 2013 – **BEng in Chemical Engineering**, *McGill University*, Montreal, QC, Canada
May 2017