# Alessio Novi

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## Technical Experience

**Creator, Software Engineer,** *Willow*     01/2024 – present

Willow (willow-cdc.github.io) 🔗 is an open-source framework for creating change data capture pipelines, reflecting database changes to a cache in near real-time.

- Developed a change data capture framework to detect PostgreSQL database row level changes and update Redis caches, leveraging open-source tools such as Debezium and Apache Kafka.
- Architected and implemented RESTful API facilitating pipeline creation and teardown (Node.js, Express).
- Designed and constructed a custom Kafka connector to transform events from Kafka and send them to a cache (Node.js, KafkaJS, Redis).
- Designed a UI based multi-step form, abstracting away Debezium and Kafka configuration process in setting up a change data capture pipeline (React, MUI).
- Implemented logic to prevent Debezium failure when provided with a PostgreSQL minimum privileged user, avoiding the need to provide a user with superuser privileges.
- Collaborated with a remote team of four engineers across two countries using agile workflow.
- Authored technical case study 🔗

**Software Engineer,** *Self Employed*     2022 – 2024

Built numerous back-end, front-end, and full-stack apps including:

- BinBucket - A request-bin like tool for receiving and debugging webhooks (Express, React, MongoDB, PostgreSQL, Socket.io).
- Todoz - Simple todo list tracker application (Express, Handlebars, PostgreSQL).
- RPSLS Game - A browser based Rock Paper Scissors Lizard Spock game (Ruby, Sinatra, Erb).

## Skills

**Languages**
JavaScript (ES6+), TypeScript, Ruby, SQL, Go

**Runtimes, Libraries & Frameworks**
Node.js, Express, React, Sinatra, Socket.io

**Misc. Technologies**
Linux, PostgreSQL, MongoDB, OOP, Docker, Git/GitHub, REST APIs, Debezium, Apache Kafka

## Professional Experience

**Export Freight Forwarder,** *GDT Logistic SPA*     2017 – 2022

Conducted daily operations related to container shipping, liaising with local and international customers.

## Education

**Launch School,** *A multi-year mastery-based curriculum teaching full-stack engineering fundamentals from first principles* 🔗     2022 – 2024

**MSc Marine Transport with Management, Maritime Studies,** *Newcastle University*     2015 – 2016