

# SEÁN Ó MURCHÚ

## Senior Software Engineer

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Backend engineer with eight years of experience designing distributed, event-driven systems. Specialises in functional programming, observability, and developer experience.

## EXPERIENCE

### Senior Software Engineer

#### Acme Corp

Jun 2022 – Present Dublin, Ireland

Platform team lead. Owns the event-sourcing stack underpinning the wider product surface.

- Led the migration of a customer-facing monolith into a set of event-driven microservices, halving p99 latency.
- Designed and rolled out an event-sourcing platform now used by four product teams.
- Mentored three engineers from mid to senior level.

### Software Engineer

#### Liffey Labs

Jun 2019 – Jun 2021 Remote

- Built and shipped the first version of a SaaS product from scratch alongside a two-person team.
- Introduced the CI/CD pipeline and developer-onboarding flow that scaled the engineering org from 3 to 15.

## VOLUNTEER

### Mentor

#### CoderDojo Dublin

Jun 2020 – Present

- Weekly mentoring sessions for 10–14 year-olds learning to code.
- Curate the Scala / functional-programming track.

## PROJECTS

### Hyperion

Distributed task scheduler in Rust

Jan 2024 – Aug 2024

- Handled 10k tasks/s on a single node.
- Designed an idempotent retry protocol.

Rust Tokio gRPC

### Crucible

Migration tool for legacy databases

Sep 2024 – Present

- Schema diffing across PostgreSQL and MySQL.

## AREAS OF FOCUS

- Distributed systems: Kafka, CDC, idempotent consumers, event sourcing.
- Functional programming and type-driven design in Scala and Haskell.
- Developer experience: tooling, CI/CD, observability.
- Engineering culture: ADRs, RFCs, mentoring.

## SKILLS

Languages - Scala Haskell Python  
Go Rust  
Infra - Kafka AWS Terraform  
Docker Kubernetes

## LANGUAGES

English ●●●●●●●●  
Irish ●●●●●●●●  
French ●●●●●●●●  
Portuguese ●●●●●●●●

## EDUCATION

### M.Sc. in Computer Science

Tallaght Institute of Technology

2017 – 2019

Distinction Distributed Systems

Type Theory Concurrency

### Computer Science

Trinity College Dublin

2014 – 2017

## Quill

### Tinkerbell

Tiny IRC bot

Lua

## PUBLICATIONS

### Articles

- *Event Sourcing in Practice.*  
Personal Blog  
14 Jun 2024  
A walk-through of idempotent Kafka consumers and the replay strategy that ships with them.
- *Untyped Note.*  
Jan 2024

### Conference Papers

- *Idempotent Kafka Consumers at Scale.*  
EuroSys  
Apr 2024

### Talks

- *Designing for Failure.*  
ScalaIO  
Sep 2023

### Books

- *Functional Domain Modelling.*  
Self-published  
2022

## INTERESTS

Music - Trad Jazz

Sport - Hurling Climbing

Travel - Japan Iceland

## CERTIFICATIONS

--- CNCF ---

Certified Kubernetes Administrator ·  
📅 Aug 2023

Certified Kubernetes Application Developer ·  
📅 Jan 2024

--- AWS ---

AWS Solutions Architect – Professional ·  
📅 May 2023

AWS DevOps Engineer – Professional ·  
📅 Sep 2024

Hashicorp Terraform Associate · 📅 Dec 2022

Certified Kubernetes Security Specialist ·  
📅 Mar 2024

Google Cloud Professional Architect ·  
📅 Nov 2023

## AWARDS

*Best Paper Award*

ScalaConf

📅 Sep 2024

For *Idempotent Kafka Consumers.*

*Dean's List*