

Matthew McLeod

Experienced Technical Lead / Principal / Architect

Hi 🙋 I'm Matthew McLeod (or vai on the internet). I've been in tech for 25+ years, and most recently spent a few years as Chapter Lead at an IoT firm. Being a generalist, and usually as a technical/strategy lead, I'm used to wearing many hats.

Since my last full time position, I've taken some months to build capabilities for my business, and as part of that we've just begun to setup a maker/hacker space in Cape Town to support other South African makers. Since I'm bootstrapping my own ventures, I'm also looking to take on some consulting or contract work.

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Work **Backend Chapter Lead**

Anova

Mar 2019 – Dec 2022

Replaced the legacy platforms, and drove the technical direction for the new platform services. Defined and implemented the unified platform's best practices, and implemented a complete IAM system

- I led redevelopment of a modern kubernetes-based microservices platform to replace several legacy M&A platforms
- Managed the technical direction of multiple project and product teams
- I set up best practices for our processes, including agile methodologies and CI/CD processes
- Specialised in Identity and Access Management, and developed our core authentication and authorization system, with MFA, FIDO, a secure token server, multi-tenant, and OAuth/OpenID support
- Ran workshops and training sessions for teams, including a series on Git, and a series on our microservices and ops practices
- Gained valuable insights into developing and operating complex IoT systems at scale

Director

QWRK

Apr 2008 – Present

Cape Town Area, South Africa

QWRK is my own consultancy which I've been running since 2008. I provide ad-hoc consulting services, and turnkey bespoke software solutions. I've also been involved in a number of startups, and have a few of my own projects in the works.

- PEPFAR - I developed the software controls for device policy, for systems distributed to HIV/AIDS testing clinics across Africa
- NHLS - Laboratory Quality Management System
- Popcorn Training - I developed a custom LMS for Popcorn Training's security awareness training platform
- ez-chat - A B2B SMS marketing and client communication platform

Programme Technical Lead

Old Mutual

Aug 2011 – Oct 2014

I spearheaded design and development of a system for the canonical storage of intermediary information (GIS), and a corresponding master-data management programme to integrate dozens of disparate business systems and utilities providing and making use of that data.

Technical Lead (Analyst / Architect)

Airborne Consulting

Sep 2007 – Feb 2008

Business Analysis and technical requirements documentation for the University of the Western Cape's rewrite of their Marks Administration System

Technical Lead

Liquid Thought

Mar 2007 – Aug 2007

As Technical Lead, my duties included initial analysis (technical and business), system architecture, requirements and specifications documentation, product support, system design & development. Our primary client was Vodacom, one of the largest mobile network operators in South Africa. I was involved in the development of a number of systems for WASPs (Wireless Application Service Providers), vendors, and Vodacom themselves.

Projects

Noetic Work

Founder

Jan 2023 – Present

Noetic Work is our hacker/maker space in Cape Town. As a founding member, I've been involved in the design and implementation of the space, and primarily responsible for the development of the website and other systems.

- I was involved in the design and implementation of the space, as well as the development of the website and other systems

- Developed a Discourse-based forum for the space
- Implemented a custom membership management system, including a custom NFC-based access control system
- Developed a custom ticketing system for events
- Created an e-commerce system based on nopCommerce, with custom plugins for Bitcoin and Lightning Network payments
- Integrated payment systems for membership and events
- Implemented Bitcoin and Lightning Network payment systems

Currently learning

Jan 2023 – Present

I practice continuous learning, I'm working on the following areas:

- Rust - I'm working through some courses to familiarise myself
- Go - I'm working on implementing some services in Go
- Discourse - I've taken a deep dive into the community software, and created some smaller plugins for our platform
- Bitcoin and Lightning Network payment systems
- Pulumi - for an alternate to Terraform for infrastructure as code
- NixOS - for Linux, and Nix for package management - I'm currently running NixOS on my personal laptop
- Astro - I've been using Astro to build sites, and have created a few small sites with it
- Podman - replacing Docker for container management
- Garuda - evaluating Garuda as a desktop OS
- Hyprland - a modern tile-based desktop environment in Wayland

Certificates

French Fluency: Intermediate

Issued by Duolingo

Skills

Software Architecture

Analysis Design Microservices

CI/CD Design Patterns

Cloud Architecture

Service Oriented Architecture

APIs REST gRPC GraphQL

Service Mesh Event Sourcing

Event Driven Architecture

Programming

C# JavaScript TypeScript

Web Development

HTML CSS SASS Angular

React Vue Node ASP.NET

Systems Development

SQL SQL Server Redis

MongoDB CosmosDB

ASP.NET Core

Blazor

ElasticSearch

Prometheus

Grafana

OpenTelemetry

PostgreSQL

kafka

NATS

Identity and Access Management

OAuth

OpenID

FIDO

MFA

SAML

JWT

OIDC

IAM

SSO

Software Development

SDLC

Process Management

Agile

Scrum

Kanban

Lean

Test Driven Development

DevOps

CI/CD

Azure DevOps

GitHub

GitLab

TeamCity

Helm

Terraform

Octopus Deploy

Branching Strategies

Release Management

Infrastructure as Code

Telemetry & Monitoring

SLAs and SLOs

Automated Testing

Continuous Integration

Continuous Delivery

Languages

English

Native Speaker

French

Limited Working

Afrikaans

Native Speaker