Richard Shephard's Resume

Personal Details

Name	Richard Shephard
Email	richard.shephard@gmail.com

Social Connections

LinkedIn	https://www.linkedin.com/in/richard-shephard-6343b54/
GitHub	https://github.com/Poimen
GitHub Profile Site	https://poimen.github.io/

Profile

I have been in the software development space for over 15 years, working to produce various business applications; whether line of business applications, or end consumer products. I have been a technical leader of dynamic agile development teams, building mission critical software from embedded devices, through to highly event driven systems handling mortgage and other loans providers. Some of the most exciting work I have done is building event sourced services and infrastructure, managing domain events, with event coordinators and projecting state to SQL databases. I have always enjoyed the areas of data modelling and enjoy building workflows to make users lives better. I believe the technology can unlock better experiences for both developers and users of our systems; bringing clarity and opening doors to insights. There are many aspects of developers' lives that can be improved by improving the tools we use and I put effort into building tooling that can do just that; both professionally and as part of OSS.

Professional Career Summary

Company	Position	Duration
Entelect Software	Technical Lead	March 2021 – Current
SA Home Loans	Technical Lead .Net Developer	Sept 2016 – March 2021
Altech UEC Technologies	Principal Engineer	Jan 2002 – Sept 2016

Key Skills

Programming Language and Stacks
- Server technologies - C# / NodeJS
- Web technologies - HTML5 / CSS / SASS / Tailwind / ReactJS / Typescript

Cloud Experience
- AWS

Database
- MSSQL

Other Skills
- Docker / Kubernetes / Containerisation
- Test Driven Development (Contributor to the NUnit OSS project)
- Behaviour Driven Development / Testing
- Domain Driven Design

Architecture Skills
- CQRS with Event Sourcing (Event driven systems)
- 12 Factor Applications

Employment

March 2021 – Current   Technical Lead (Entelect Software)

I am currently employed with Entelect Software in the capacity of a Technical Lead. In this role I am expected to be able to lead a team to technical excellence and maturity. In this being able to adapt solutions for a customer given the customers unique requirements and/or restrictions. This requires learning customer environments, code bases (a variety of technology stacks, domains, types), work processes and being able to liaise with customers' technical staff (architects, security, other leads, etc.). I am also involved in training initiatives and help mentor team members.

Due to the nature of consulting, I have had to ensure that I am able to learn on-the-job quickly in order to get up to speed with the customer code structure such that I am able to lead a team, answer questions and generally be able to direct the team to be able to deliver value. This requires understanding the codebases, infrastructure and contact points as well as being able to do technical audits. This requires adapting known patterns for each customer to ensure customer success and to help customers take steps for best practices as the need arises. This also requires application of past experiences to enhance delivery for a customer.

In these engagements, I still get into the codebase and code with the team. In a tea setting, I promote pair programming for mentoring and coaching junior developers. This helps with building a shared understanding and good code principles.

Some highlighted deliveries for customers:
- I am involved in building various APIs in Old Mutual Bank in AWS using EKS, Step Functions and Lambda. Utilising Infrastructure as Code, Python code, I lead a team building out full Real-Time content with dynamic Mobile App screen flow generation based on a SaaS portal. This uses AWS Lambda to generate the dynamic content, step functions to control screen flow and EKS for Website technologies
  Stacks: Python, ReactJS, AWS Lambda, EKS, Step Functions

- For FNZ (a global wealth platform), I was involved in leading the team building several ReactJS frontends and APIs in C#. We built a number of custom user interfaces off of a common UI infrastructure, tailored to a customer's given requirements. Working within strict timelines and technology blocks, we maintained quality and integration into custom API gateways. This was a full stack development, working closely with API contracts.
  Stacks: C# (Framework), ReactJS, Azure DevOps

- For Old Mutual Finance, I built a complete loans onboarding workflow for the public that was deployed into AWS. This workflow provided real-time loan quotations and allowed seamless integration into Old Mutual's finance systems. This was a full stack deployment with Backend-for-Frontend API in Kotlin, ReactJS/Gatsby/Web Component frontend.
  Stacks: Kotlin (SpringBoot), ReactJS/Gatsby, StencilJS, Figma, AWS

- For Old Mutual Digital, I lead a team in building the Old Mutual Design System (OMDS) UI library using Web Components. Old Mutual is a financial services company, and the design system formed the basis for all their future deployments using ReactJS, Gatsby, VueJS and Angular, both internally and externally. This allows Old Mutual to provide a coherent brand across all sites and across the African continent, while still allowing feature teams to choose the technology stack best suited for their skills.
  Stacks: Kotlin (SpringBoot), StencilJS, Figma, Azure DevOps

October 2016 – March 2021   Technical Lead .Net Developer (SA Home Loans)

At SA Home Loans (SAHL), I was employed in the capacity of a Technical Lead. In this role I performed technical design reviews, handled technical/architectural decisions, code reviews and mentoring of junior developers. This is done at the team level as well as the organisational level.

I participated in the design and decision board that formed the direction of the SAHL's overall software architecture, working in conjunction with the System Architect. As a technical lead, my role was to perform necessary investigations and run proof-of-concepts that formed the basis of architectural direction.

As part of a team, I ensured the team followed good technical coding principles to maintain code quality. This was achieved through code reviews, team feedback and pair/mob programming. In conjunction with this I was able to code up infrastructure and business functionality. Teams were responsible for both core infrastructure and business features. This led to being exposed to several valuable DevOps and engineering principles; service meshes, containerisation and infrastructure as code, to name a few.

We followed the agile development methodology to progressively keep the company code base and architecture forward. In this, both the code base and the architecture are iteratively brought into line with software standards. In development of business features we ensure quality through TDD and BDD practices that ensure a high level of software quality and testability.

Most of the development undertaken is in C#, with an increasing number of NodeJS services deployed as Docker Containers. We followed Domain Driven Design principles to help our service-oriented architecture to deliver value to the business. We developed REST API for our services in an API-first manner, while following the CQRS and Event Sourcing methodologies. The architecture was almost fully event driven, while we utilise event coordination for business processes.

Reason for Leaving: Opportunity to work remotely in the consulting industry.

Jan 2002 – September 2016   Principal Engineer (Altech UEC Technologies)

At Altech UEC, after more than 14 years, I gained experience in coding for embedded devices (set top boxes) in C, C++, Python, HTML, JavaScript, and Java, as well as writing a number of PC applications in

C++, C# and occasional Python to interface with these devices. These applications were stand-alone applications for Windows.

My job role was quite varied with much of the time spent in the role of technical specialist. As a technical specialist, I have worked on delivery of software architecture and code stacks which would be deployed across a number of embedded chipsets that required a high degree of shared code. This was done to minimize the need of other teams to craft specific changes per chipset. The software architecture was from User Interface implementation (C++ and HTML/JavaScript) to low level drivers (Linux Kernel). In a more product centric team I would have ensured technical compliance to specifications through code reviews as well as coding specific architecture level frameworks to ensure team cadence.

A full list of projects and implementations are available upon request.

Reason for Leaving: Move into more business applications.

Interests

My interests mainly revolve around technology. I run a small local Kubernetes cluster to test out various DevOps related activities. This allows me to try out various aspects of infrastructure-as-code practices and test out new techniques for application deployments and developer platforms.

I feel strongly that developer productivity is important, and as time allows, help with the NUnit OSS project. Unit testing is such an important aspect of developers lives and I believe this project fill a much needed gap. I also run a small OSS project that helps to integrate TailwindCSS into StencilJS (Web Components).

I spend a fair amount of time reading and listening to conferences like DevConf, NDC, GOTO Conferences. I enjoy seeing the latest developments in the ecosystem and how this can be used in my day-to-day to improve my skills, and by extension, my team members.

Achievements

2013	Employee of the Year (R&D)
2001	Graduated First Class Honours at University of Cape Town
2000	Dean's Merit List at University of Cape Town
1999	Dean's Merit List at University of Cape Town
1998	Dean's Merit List at University of Cape Town

Education

Dec 2001	**BSc (Electrical Engineering)**
	Honours at University Of Cape Town

Computer Science 1 (79%), Computer Science 2 (69%), Computer Science 3 (77%), Engineering 1 (83%), Engineering 2 (73%), Engineering 3 (77%), Engineering 4 (80%), Mathematics 1 (65%), Mathematics 2 (67%), Physics 1 (63%), Engineering Drawing (79%), Medical Engineering (80%).

All Courses in BSc (Elec Eng) as well as BSc (Computer Science), graduating With First Class Honours

Dec 1997	**Senior Certificate**
	Grade 12 / Matric at Westerford High School (Secondary/High School)
	English, Afrikaans, Mathematics, Science, Geography, Accounting