

Please note that all text in square brackets is intended for guidance for the hiring team and must be replaced before publishing.

COMPANY OVERVIEW: DataDrive2030 is an independent, child-focused data hub and think tank. We generate and mobilise trusted evidence to improve early childhood outcomes in South Africa. Through this work, we aim to realise our 2030 vision: more young children in South Africa thriving within stronger, more equitable early learning systems enabled by trusted evidence and collective action.

BUSINESS UNIT OVERVIEW: The data team sits at the heart of DataDrive2030's data ecosystem, turning assessment data into reliable, accessible information for democratised decision-making. The team manages the data pipeline from collection and quality control through cleaning, validation, analysis and reporting. It develops and maintains databases, dashboards, portals and automated notification processes, while supporting fieldwork and partner data needs. Alongside technical delivery, the team strengthens data governance, security and POPIA compliance, ensuring that DD2030's data remains trustworthy, useful and responsibly managed throughout its lifecycle.

1. ROLE DETAILS [Complete each field using short phrases. Maximum: 60 words in total across the section.]

Role Title	R Programming & Shiny Developer	Business Unit	Data Team
Line Manager	Data Systems Lead	Employment Type	Fixed Term Contract – 6 Months
Location	Hybrid – Cape Town Based	Salary	Competitive

2. CORE OUTCOMES

Purpose

The R Programming & Shiny Developer role exists to strengthen DataDrive2030's capacity to build and improve reliable, scalable data applications. The role supports the development, testing, performance and continuous improvement of production R/Shiny applications, dashboards and the client portal, including their connections to databases, APIs and other data sources. It supports the Data Team, internal operational users, analysts, engineers and external partners by translating data and workflow requirements into secure, intuitive tools. The main outcome is stronger, more maintainable and user-friendly applications that make high-quality data and analytics accessible, support efficient decision-making and improve the overall reliability of DD2030's data systems.

Key Functions [Include 4-5 key function areas, with 2-4 concise bullets under each section. Focus on outcomes rather than tasks. Maximum: 300-400 words.]

Shiny Application Development and Improvement

- Support the development and enhancement of production-grade R/Shiny applications, dashboards and the client portal.
- Contribute to modular, scalable and maintainable application structures using Golem and Rhino.
- Help ensure applications remain intuitive, reliable and fit for operational and analytical use.

Data Integration and Application Reliability

- Support secure and efficient integration between Shiny applications, databases, APIs and structured data sources.
- Help ensure that data displayed in applications is accurate, validated and consistently transformed.
- Contribute to reliable application behaviour across changing datasets, workflows and user requirements.

Performance, Testing and Code Quality

- Improve application responsiveness by identifying and addressing inefficient reactive logic, calculations and database queries.
- Contribute to automated testing, code review and version-control practices that strengthen application stability.
- Support clean, reusable and well-documented R code that can be maintained beyond the contract period.

User Experience and Data Accessibility

- Translate operational and analytical requirements into clear, practical interfaces for technical and non-technical users.
- Develop effective tables, visualisations and interactive features that make data easier to interpret and use.
- Support consistent, accessible and user-friendly experiences across DD2030's internal and client-facing applications.

Key Functions [Include 4-5 key function areas, with 2-4 concise bullets under each section. Focus on outcomes rather than tasks. Maximum: 300-400 words.]

Deployment, Support and Continuous Improvement

- Support deployment, monitoring and troubleshooting of production applications.
- Work collaboratively with the Data Team and internal stakeholders to resolve issues and implement priority improvements.
- Contribute technical recommendations, documentation and knowledge transfer that strengthen the team's longer-term capability to maintain and extend its R/Shiny applications.

3. REQUIREMENTS PROFILE

3.1 Qualifications

Qualification Type:

Degree/Diploma/Professional Qualification

A relevant tertiary qualification is preferred, although strong practical experience in R/Shiny development may be considered in place of a formal qualification.

Preferred Fields of Study

Computer Science, Data Science, Statistics, Information Systems, Software Engineering, Mathematics, or a related quantitative or technical field.

Advantageous qualifications/certifications

Relevant certifications or formal training in R programming, software development, cloud platforms, databases, DevOps, data engineering, or application deployment would be advantageous, particularly where they demonstrate practical capability in production data applications.

3.2 Experience

Essential experience

- At least two years' practical experience developing R/Shiny applications, including substantial use of reactive programming.
- Demonstrated experience building, maintaining and improving production-grade dashboards or data applications.
- Experience working with modular Shiny architectures, including Golem, Rhino, or comparable structured development approaches.
- Practical experience integrating applications with relational databases, APIs and structured data sources.
- Experience using Git-based version control, testing frameworks and collaborative software development practices.

Advantageous experience

- Experience deploying and supporting Shiny applications using Posit Connect, ShinyProxy, containers or cloud infrastructure.
- Experience improving application performance through profiling, database optimisation, caching or asynchronous approaches.
- Experience working with operational, monitoring and evaluation, or similarly complex real-world datasets, particularly where data quality, security and access controls are important.

3.3 Capabilities [Include 5–6 capabilities. Describe each in one sentence of approximately 25–35 words. Maximum: 180–280 words.]

R/Shiny Development	Able to design, build and improve robust R/Shiny applications using sound reactive programming, modular architecture and reusable coding practices that support reliable production use.
Problem Solving and Troubleshooting	Able to diagnose application, data and performance issues systematically, identify practical solutions and implement improvements without creating unnecessary complexity or technical debt.
Data Integration and Quality	Able to connect applications to databases, APIs and structured data sources while ensuring that data is validated, transformed and presented accurately and consistently.
User-Centred Application Design	Able to translate operational and analytical requirements into clear, intuitive interfaces and visualisations that work well for both technical and non-technical users.

3.3 Capabilities [Include 5–6 capabilities. Describe each in one sentence of approximately 25–35 words. Maximum: 180–280 words.]

Collaborative Development	Able to work effectively with data specialists, engineers and internal stakeholders, contributing constructively to code review, technical decisions and iterative product development.
Technical Judgement and Maintainability	Able to make appropriate technical choices that balance functionality, performance, security and maintainability, while documenting work clearly enough for others to support and extend it.

- **Closing date:** NA
- **Expected start date:** ASAP
- To apply, please submit **Application Letter & CV** through callum@datadrive2030.co.za. Use “**R Programming & Shiny Developer**” as the subject line.
- For application-related enquiries, contact callum at callum@datadrive2030.co.za.