

ROSE MEGIRIAN

Applied Researcher | Data Scientist | Insights Specialist | Behavioural Scientist

website • github • linkedin

Interdisciplinary practitioner integrating behavioural science, applied analytics, design thinking, and insight generation to improve outcomes in complex systems.

Work involves integrating diverse forms of evidence, disciplinary insights, context, and perspectives to develop coherent understanding of complex challenges, translating this into actionable insight that improves the way information, people, and systems interact.

Currently applying this approach within crop pest and disease research, designing and improving research methodology, data practices, and analytics to enhance the reliability and decision-usefulness of agricultural research evidence. Prior experience spans applied research, strategy, policy, community development, and project work across public and private sector environments.

EDUCATION

- Bachelor of Science (Psychology)**

2020-2022

Curtin University
- Bachelor of Design (Honours)**

2007-2011

RMIT University
- Diploma of Programming and Web Development**

2025

Equinim College
- Advanced Diploma of Gold and Silversmithing**

2013

Central Institute
- Certificate IV in Business**

2012

Australian Business Solutions

SKILLS

- Research Methods & Systems
- Survey and measurement tool development, Qualitative coding and thematic analysis, Experimental and observational research design and protocol development, co-design and participatory methods, intervention and program evaluation, systems mapping, economic evaluation
- Data & Statistical Analysis
- Statistical modelling, causal inference, mixed-effects models, exploratory data anlysis, data cleaning and transformation, data visualisation, reproducible analytical workflows - R (tidyverse, lme4, ASReml-R, ggplot2, Shiny, Quarto), SPSS, NVivo, Git
- Communication & Synthesis
- Insight synthesis and reporting, visual communication, stakeholder engagement, facilitation, project

EXPERIENCE

- Data Scientist & Research Consultant**

Jan 2024 – Present

Analytics for the Australian Grains Industry (AAGI) Curtin University, Western Australia
- Design and improve research systems, data architectures, and statistical methods across agricultural research organisations, government agencies, and industry stakeholders in the Australian grains sector, strengthening the reliability and decision-usefulness of agricultural evidence for improved productivity and sustainability outcomes.
- selected achievements & contributions*
- Co-designed a national crop pest and disease surveillance data framework for Australian biosecurity, addressing critical methodological limitations required to enable valid economic impact assessment. Delivered multidisciplinary workshops with epidemiologists, plant pathologists, entomologists, and industry experts to develop a technically robust and operationally viable data system design.
 - Designed the organisation’s impact measurement system, including theory-driven and behaviourally informed survey instruments, establishing a structured approach for evaluating impact and improving the validity and consistency of organisational performance reporting.
 - Developed structured capability resources, including a digital resource library, technical guidance, and training materials, to support research staff and external collaborators in experimental design, data collection, and analytical workflows, improving consistency, transparency, and reliability of research practices across projects.
 - Advise researchers on experimental design, supporting the development of study frameworks, protocols, and sampling strategies prior to data collection to ensure methodological robustness, operational feasibility, and alignment with industry decision contexts.
 - Lead statistical analysis and reporting of complex biological, environmental, and economic datasets, generating outputs in R and translating results into clear, decision-relevant insights for research and industry stakeholders.

- Research Officer**

May 2023 – Jan 2024

Centre for Crop and Disease Management (CCDM) Curtin University, Western Australia
- Provided behavioural science and mixed-methods research support across agricultural research projects, focusing on decision-making and adoption of integrated pest and disease management practices and their socio-economic impacts within crop pest and disease systems.

- selected achievements & contributions*
- Conducted literature reviews and evidence synthesis spanning behavioural science, decision-making, pest and disease dynamics, and economic and methodological approaches in complex biological, environmental, and socio-

coordination and delivery - Quarto, LaTeX, HTML/CSS, Quarto, Adobe Illustrator, InDesign, Photoshop

REFERENCES

Available on request.

economic systems, informing research design and supporting the integration of cross-disciplinary methods into agricultural research.

- Collaborated with research teams and industry stakeholders to review and refine research tools, ensuring methodological rigour, contextual relevance, and suitability for applied agricultural research settings.
- Designed survey instruments and measurement tools, including question development and refinement, to capture behavioural drivers of agricultural decision-making and socio-economic impacts.
- Conducted large-scale structured data collection with hundreds of growers across diverse farming contexts to gather behavioural and decision-making data.
- Contributed to research reports with actionable recommendations, including economic analyses, to support adoption of sustainable practices.

Freelance Facilitator, Project Manager & Consultant

Feb 2009 – Aug 2023

Independent

Northern Territory, Victoria & Western Australia

Facilitation, project coordination, and consultancy services across arts, community, and local government settings, delivering workshops, community programs, and advisory services through stakeholder engagement and collaborative processes.

selected achievements

- Guest speaker at Stackwood (2022), delivering Sustaining a Sustainable Practice, a lecture exploring environmental sustainability, ethical practice, and financial sustainability in creative businesses.
- Arts and community grant assessment for local and state government programs, applying structured evaluation criteria to support funding decisions.
- Workshop facilitation and professional development programs for artists, designers, and arts workers across regional arts organisations, cultural institutions, and industry development programs.
- Community arts project facilitation in collaboration with Indigenous and local communities, including intergenerational and culturally grounded participatory projects.
- Artist-led gallery and community activation projects, involving full setup and delivery of the space, including building owner liaison, operational setup (including tenancy and insurance requirements), fit-out, and delivery of public exhibitions and events.

Facilitator, Project Manager & Retail Programs

Jul 2012 – Aug 2023

Walyalup Fremantle Arts Centre

Western Australia

Delivery of community programs, artist initiatives, and commercial events within a public arts institution, supporting artist income generation, audience engagement, and program delivery across exhibitions, workshops, and retail activities.

selected achievements & contributions

- Curated and delivered State Buildings' East End Festive Marketplace (2022), an income-generating public program supporting Western Australian creatives; coordinated stakeholders, participating artists, and project delivery with State Buildings representatives, generating more than \$10,000 in revenue for participating artists.
- Developed *Market Ready* (2018), a practical visual resource for Aboriginal artists and Arts Centres participating in *Revealed*, supporting engagement with new commercial markets and audiences.
- Led content and concept development for the Artists & Makers section of the Walyalup Fremantle Arts Centre website; collaborated with web developers and the marketing team; coordinated studio visits and content production; wrote artist and maker profiles; and populated the website to support artist visibility and sales during the COVID-19 pandemic lockdown.

Designer, Founder & Business Manager

Apr 2013 – Present

Many Peaks Assembly

Founder and operator of an independent creative studio delivering exhibitions, design work, and cultural projects, integrating creative production with business administration and project delivery.

- Producing original artworks and design objects, with ongoing exhibition, retail, and commission-based work through galleries, stockists, and direct commissions.
- Manage business operations including budgeting, financial administration, pricing, and income tracking to support ongoing creative production and sustainability.
- Produce digital content and marketing materials, including website development, photography, and communications content to support audience engagement and sales.
- Develop and maintain commercial arrangements for creative work, including commissions, collaborations, and licensing of creative outputs.
- Curate and produce exhibitions and public-facing projects, coordinating venues, collaborators, and presentation contexts.
- Manage all business operations including financial oversight, budget management, P&L analysis, and strategic marketing.
- Curate and deliver annual exhibitions, events, and showcases from inception to execution.
- Design and build websites, develop content, and run promotional campaigns to drive engagement and sales.
- Manage intellectual property, contracts, and commercial collaborations.

AREAS OF PRACTICE

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| • Agricultural research and cropping systems | • Behaviour change science and decision research in applied settings |
| • Program, application and intervention evaluation (grants, impact assessments and monitoring) | • Mixed-methods research design, data collection, and analysis |
| • Research systems design, data architecture, and methodological frameworks | • Community arts, cultural programs, and creative sector development |
| • Community and participatory practice (Meaningful engagement across diverse groups) | • Creative practice, and cultural programming (institutional and independent contexts) |

SELECTED HIGHLIGHTS

- **Title.** Venue, Year. [link](#)
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