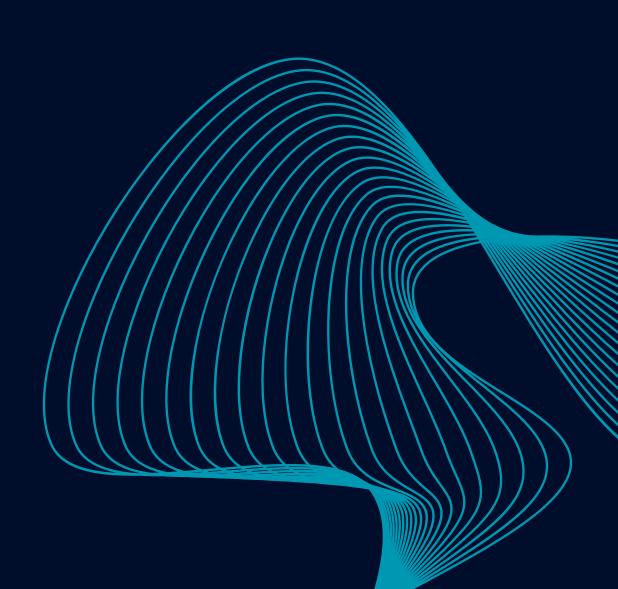
# EARL 2025 | Enterprise Applications of the R (& Python) Language

# EARL conference 2025 Agenda





08:30 to 09:00 | Networking with Tea and Coffee

09:00 to 12:30 | Morning Workshop (Stream One)

### **Dynamic presentations with Quarto**

# Myles Mitchell Jumping Rivers



Quarto is an open-source publishing system that lets you combine text and code to create dynamic content in HTML, PDF, dashboards, and more. This workshop will show you how to create presentations that automatically update when data changes, saving you time and making your presentations more powerful.

This workshop will cover:

- Creating presentations using Quarto
- Embedding executable R/Python code
- Dynamically adding plots and tables
- Styling slides with template CSS files
- Publishing presentations to the web

### Requirements:

Basic experience in R or Python. No prior knowledge of CSS, Quarto, or Markdown needed.

A cloud environment with all dependencies pre-installed will be provided.

09:00 to 12:30 | Morning Workshop (Stream Two)

### Simulation guided Bayesian Designs using R

## Lincoln Colling **Nomio**



This workshop covers a basic introduction to Bayesian statistics, including a theoretical understanding of Bayesian methods, as well as hands-on activities. Participants will learn the key differences between Bayesian and frequentist approaches and discover the advantages of Bayesian methods. The workshop begins with a conceptual introduction to help build intuitions about Bayesian methods. We then work through hands-on examples in R

### This workshop will cover:

- Bayesian hypothesis testing,
- How Bayesian methods solve the problem of stopping experiments early
- Bayesian regression modelling

### Requirements:

No prior knowledge of Bayesian statistics is required.

A list of R packages will be shared in advance for the practical session.,

12:30 to 13:30 | Break

13:30 to 17:00 | Afternoon Workshop (Stream One)

### **Core Machine Learning Concepts in Python**

# Aida Gjoka **Jumping Rivers**



Machine learning is a powerful tool for uncovering patterns and making predictions. This workshop blends theory, real-world case studies, and practical coding exercises to help you build foundational skills in supervised and unsupervised learning using Python.

### This workshop will cover:

Introduction to machine learning

Regression techniques

Model assessment and feature selection

Classification

Clustering

### Requirements:

No prior Python experience required.

A cloud environment with pre-installed libraries will be provided. All materials will be shared via GitHub.

13:30 to 17:00 | Afternoon Workshop (Stream Two)

# <u>Deploying AI in R with {ellmer} and {shiny}: From Experimentation to Production</u>

### Nic Crane

### Freelance R Consultant



Large language models (LLMs) are transforming workflows, but effective use in R requires careful design and deployment. This hands-on workshop introduces the {ellmer} package and shows how to integrate AI into R and Shiny applications.

### This workshop will cover:

- Prompt design and engineering
- Using the {ellmer} R package
- Building LLM-powered Shiny apps
- Deploying LLM applications responsibly

### Requirements:

Basic experience with R and Shiny. No prior LLM experience needed.

Code examples and exercises will be provided to reinforce key concepts.

### 17:00 | End of Day

### Wednesday 15th October

08:30 to 09:00 | Networking with Tea and Coffee

### 09:00 to 10:30 | Session One

09:00 to 09:05 | Conference Opening Remarks | Jeremy Horne

09:05 to 09:45 | Keynote Rachel Keane

09:50 to 10:30 | Keynote Eric Drass

### 10:30 to 11:00 | Break

11:00	to 12:30   Session Two		
	Stream One R in Wildlife		Stream Two Data Visualisation in R and Python
11:00 to 11:30	R is for (Horse) Racing Colin Magee & Jay Emerson Doorda & Yale University	11:00 to 11:30	Duck, Duck, Dashboard! Laura Mawer Datacove
11:30 to 12:00	Understanding Dog Relinquishment: Insights From Multidimensional Analysis in R Dr Sarah Weidman & Chris Newton Dogs Trust	11:30 to 12:00	Making Hybrid-Working Work for Workers by Visualising Real-Time Office Desk and Room Availability With Leaflet and Shiny Luke Bandy The Pensions Regulator
12:00 to 12:30	How We Share 300 Million Wildlife Records Online for Free and What They Tell Us Will Millard National Biodiversity Network Trust	12:00 to 12:30	<b>Jupyter Widgets for R</b> Romain François TA.DA
12:30	12:30 to 13:30   Lunch		

Stream One R For Good	Stream Two
	Data Science At Scale
13:30 Enhancing Efficiency and Creativity to With Natural Language Processing and 14:00 Generative AI in R Shiny Apps Katy Morgan Government Internal Audit Agency	13:30 Measuring advertising impact in R: to Workspace's first TV campaign. 14:00 Cherry Tian & Jeremy Horne Workspace & Datacove
14:00 Delay-Related Harm: Direct and to Indirect Impacts of Boarding Medical 14:30 Patients in the Emergency Department on the Urgent and Emergency Care Pathway Nick Howlett NHS	14:00 Bespoke GA4 Anomaly Detection With to Python 14:30 Zac Nash Fresh Egg
<ul> <li>14:30 Lucidum: An R Shiny App to Build and</li> <li>to Communicate Insurance Pricing Models</li> <li>15:00 Gary Hemming</li> <li>Lucidum Data Science</li> </ul>	14:30 From Prototype to Production: A Brief to History of a Data Project That Was 15:00 Supposed to Be Simple, Became Complex, and Still Only Occasionally Falls Over Andres Baravalle On The Beach

15:30 to 17:00   Session Four			
	Stream One R and Py with Al		Stream Two Fundamentals of Analytics
15:30 to 16:00	Al Transcription: Creating a Productionised Internal Tool Elizabeth Brown Branding Science	15:30 to 16:00	Validation of R Packages for Regulated Industries Colin Gillespie Jumping Rivers
16:00 to 16:30	Enhancing Sensory Product Testing With R, Python and Large Language Models (LLMs) Jack Westcott & Kasidit Tipayawatn MMR Research Worldwide Ltd	16:00 to 16:30	Automating the Mundane: Leveraging Python for Data Mappings and Test Data Gen James Mullan Snap Analytics
16:30 to 17:00	From Fragmentation to Transparency: Using AI to Democratise Social Care Data Amit Kohli Access Social Care	16:30 to 17:00	Al Agents in the Data Pipeline Craig West Agentic Pythonista

17:00 | Closing Remarks | End of Day One of EARL

Evening Event and the Royal Pavillion - Ticket Holders Only - Tickets Available at Front Desk

Thurs	day 16th October
08:30	to 09:00   Networking with Tea and Coffee
09:00	to 10:30   Session One
09:00	to 09:05   Conference Opening Remarks   Jeremy Horne
09:05	to 09:55   Panel: Connecting the Dots: Leadership Strategies
09:55 to 10:25   Lightning Talks	
09:55 to 10:05	Human Side of Change Masha Gaganova, MGM Creative Solutions
10:05 to 10:15	R Wizardry: Building Capability and Community From the Bottom Up Stephen Price, City and Guilds
10:15 to 10:25	Targets and Tasks: Make Inspired Live Refresh Joseph Osborne, Zap-Map

10:30 to 11:00 | Break

11:00	to 12:30   Session Two		
	Stream One Code Validation		Stream Two Simulating the World with R and Python
11:00 to 11:30	<b>R Validation – From Theory to Practice</b> Mike Smith Pfizer	11:00 to 11:30	Digging Into Free-Text Data in Dog Behavioural Welfare Datasets Jana Muschinski & Mel Weedon Dogs Trust
11:30 to 12:00	Creating Validated Data Pipelines With Nextflow Mark Sellors Atorus Research	11:30 to 12:00	Pythonic Pathways to Carbon Clarity: Estimating Indirect Emissions Jason Verrall The Pensions Regulator
12:00 to 12:30	Scaling Up Enterprise Data Science in R with Arrow and Parquet Nic Crane NC Data Labs	12:00 to 12:30	Simulating the Universe With Python? Stephen Wilkins University of Sussex
12:30 to 13:30   Lunch			

Stream One R and Py with AI  Statistical Modelling in R  The 4th Hyperludic Accelerant: "How to Can We Know Where We Are Going If 14:00 We Don't Know Where We've Been?" Vincent Murphy Hyperludic Ltd  13:30 From R to Bar: Creating a P Concept for Catering Sales 14:00 Megan Bourne Levy  14:00 Building a RAG System For Your  14:00 Improving Analytics by Using the Radio Statistical Modelling in R  13:30 From R to Bar: Creating a P Concept for Catering Sales 14:00 Megan Bourne Levy	
to Can We Know Where We Are Going If  14:00 We Don't Know Where We've Been?"  Vincent Murphy Hyperludic Ltd  14:00 Building a RAG System For Your  to Concept for Catering Sales 14:00 Megan Bourne Levy  14:00 Improving Analytics by Usi	
to Business: A Guide to Delivering  14:30 Genuine Impact Gabe Musker & Cosima Calder Branding Science & Blok  to Inference Techniques 14:30 AJ Small Sky UK	ing Causal
14:30 Classified Success: Using an LLM to to Analyse Seller Calls 15:00 Christopher Campbell AutoTrader  14:30 Why Hospitality Needs Har to Make It More Human 15:00 Victoria Searl & Josh Willian DataHawks	

15:30	15:30 to 17:00   Session Four		
15:30 t	15:30 to 16:00   Lightning Talks		
15:30 to 15:40	<b>Levelling-Up: An R Shiny Solution Modelling Costing Decisions for Level Crossings</b> Dr Alison Telford, City and Guilds		
15:40 to 15:50	<b>Semi-automatic database normalisation in R</b> Mark Webster, Principle Analyst, Paymentshield		
15:50 to 16:00	DuckDB for SQL-native Data Science in Python Jamie Matthews, DabApps		
16:10 to 17:00   Keynote Wes Mckinney			
17:00   End of Conference   Jeremy Horne Closing Remarks			

