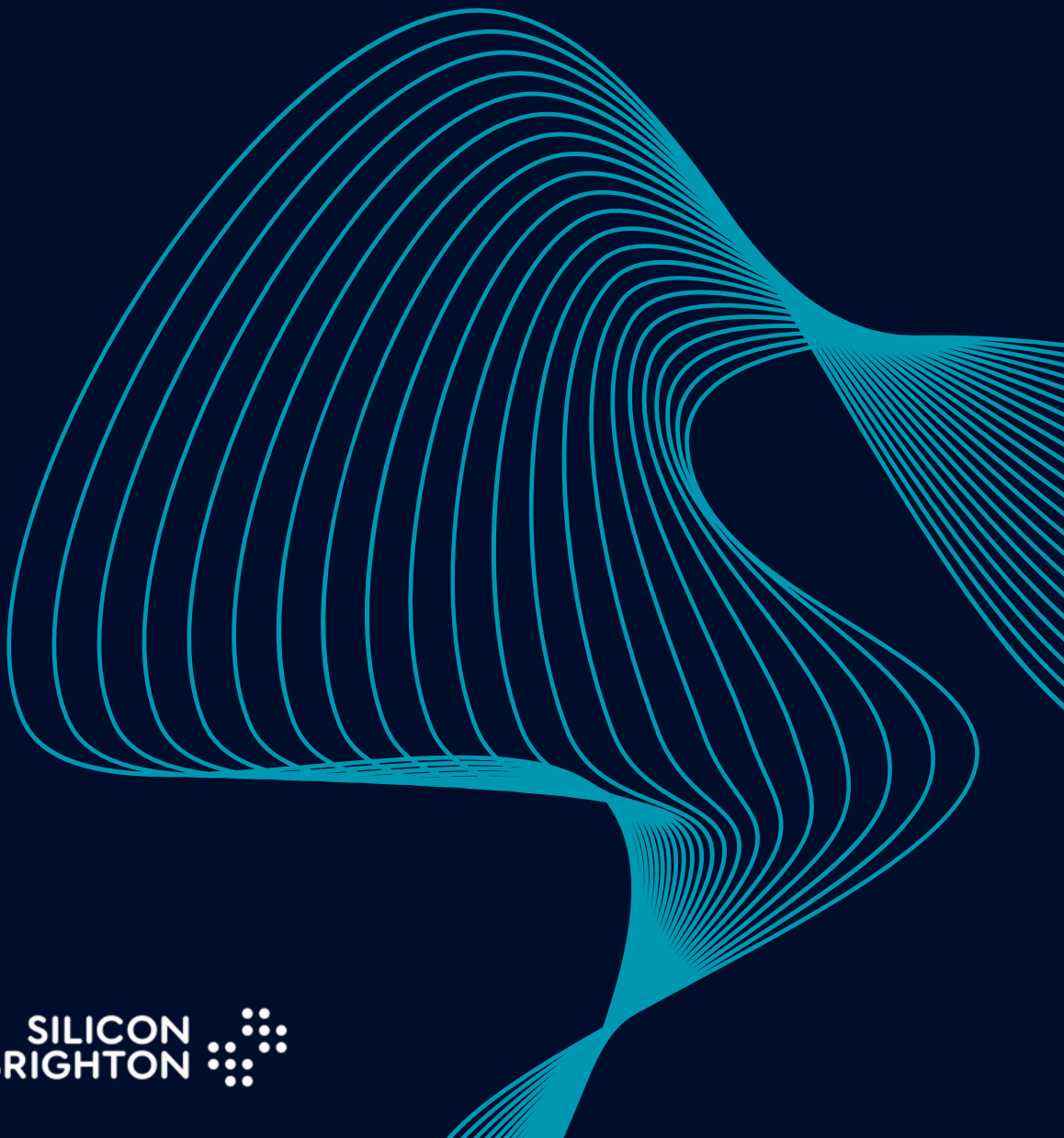
EARL conference 2025 Agenda

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



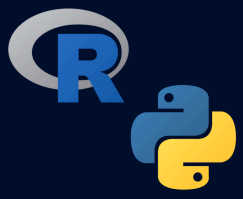
Datacove

SILICON BRIGHTON

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

Requirements: Basic experience in R or Python, no experience needed with CSS, Quarto, or Markdown.

Quarto is an open source scientific and technical publishing system built on Pandoc. It allows you to create dynamic content with R and Python in a variety of output formats including HTML, PDF, dashboards and more. By combining plain text with code, Quarto allows you to create presentations that automatically update when the data inevitably changes. This will save you time with replacing any figures in your presentations, plus it's a great format for presenting code!

This interactive tutorial will take you through:
- Creating presentations using Quarto
- Embedding executable R and/or Python code into the presentation
- Dynamically embedding plots and tables
- Styling your presentations using template CSS files
- Publishing your presentation to the web

The workshop will be run using a cloud environment with all of the dependencies and libraries pre-installed.

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

Simulation guided Bayesian Designs using R

Rajat Mukherjee and Imran Hossain
MuSigmas Consultants, S.L.

Requirements: Basic experience in R. No prior knowledge of Bayesian statistics is required.

A workshop where we introduce Bayesian statistics and its applications in clinical trials and Machine learning for clinical diagnostics. The focus of the workshop will be on:

1. Study designs which incorporate dynamic borrowing from historical data and interim adaptations.

2. Use of Bayesian predictive probabilities for interim decision making.

3. Use of Bayesian classification models for developing and validating clinical diagnostic devices.

4. Both the above topics will be illustrated using real case studies and with hands-on practical session using R. The instructors will send a list of R packages that will be used during the practical session.

5. We will also plan to discuss parallels to other fields of application such as finance and sports analytics and in particular, the use of predictive probabilities.

12:30 to 13:30 - Break

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

Core Machine Learning Concepts in Python

Aida Gjoka
Jumping Rivers

Requirements: Need a laptop connected to WiFi and no prior Python experience is required.

Machine learning is a powerful tool for uncovering patterns in data and making predictions. This workshop explores key concepts in supervised and unsupervised learning, exploring techniques on regression, classification, and clustering.
Through a combination of theoretical instruction, practical exercises, and real-world case studies, participants will gain hands-on experience with these essential machine learning techniques in Python and develop the skills necessary to apply them to their own data-driven challenges.

Topics to be covered:
- Introduction
- Simple Regression Techniques
- Model Assessment and Feature Selection
- Classification
- Clustering

To attend this workshop, you only need a laptop connected to WiFi and no prior Python experience is required. We will provide a cloud environment with pre-installed libraries and dependencies. Additionally, all workshop materials will be available in a public GitHub repository.

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

Deploying AI in R with {ellmer} and {shiny}: From Experimentation to Production

Nic Crane
Freelance R Consultant

Requirements: Basic experience in R and Shiny, no experience needed with LLMs.

Large language models (LLMs) are transforming how we work, but using them effectively in R requires careful design and deployment. The {ellmer} package simplifies access to LLMs in R, making it easier to build AI-powered applications, automate workflows, and extract structured insights from unstructured data. But how do you move from experimentation to real-world deployment?

This hands-on workshop will guide you through practical applications of LLMs in R, using {ellmer} to integrate AI capabilities into Shiny apps. We'll cover:

* prompt design and engineering
* the {ellmer} R package
* creating LLM-powered Shiny apps
* deploying LLM-powered Shiny apps

Throughout the session, we'll balance hands-on coding with discussion of best practices for deploying LLM-powered automation responsibly. Whether you're an R developer exploring AI for the first time or looking to integrate LLMs into business workflows, this workshop will equip you with the tools and techniques to deploy AI-powered solutions confidently.

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

17:00 - End of Day

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

09:00 to 10:30 - Conf Opening remarks and Keynotes including Eric Drass

10:30 to 11:00 - Break

11:00 to 12:30 - Session Two

Stream One	Stream Two
R is for (Horse) Racing Colin Magee and Jay Emerson **Betwise**	Shiny and Python for Education Laura Mawer & Marcus Palmer **Datacove and Education Cubed**
Understanding Dog Relinquishment: Insights from Multidimensional Analysis in R Dr Sarah Weidman and Chris Newton **Dogs Trust**	Making hybrid-working work for workers by Visualising real-time office desk and room availability with Leaflet and Shiny Luke Bandy **The Pensions Regulator**
How we share 300 million wildlife records online for free and what they tell us. Will Millard and Rhiann Stock **National Biodiversity Network Trust**	jupyter widgets for R Romain François **TA.DA**

12:30 to 13:30 - Lunch

13:30 to 15:00 - Session Three

Stream One	Stream Two
Enhancing efficiency and creativity with Natural Language Processing and Generative AI in R Shiny Apps Katy Morgan **Government Internal Audit Agency**	Building a new Econometric Model for Marketing from Scratch Abbie Brookes **Datacove**
Delay-related harm: direct and indirect impacts of boarding medical patients in the Emergency Department on the urgent and emergency care pathway Nick Howlett **NHS**	Implementing an automated anomaly detection model Zac Nash **Fresh Egg**
Work Smarter, Not Harder: Elevate Your Projects with R Packages Kylie Ainslie **Dutch National Institute for Public Health and the Environment (RIVM)**	From Prototype to Production: A Brief History of a Data Project That Was Supposed to Be Simple, Became Complex, and Still Only Occasionally Falls Over Andres Baravalle **On The Beach**

15:00 to 15:30 - Break

15:30 to 17:00 - Session Four

Stream One	Stream Two
AI Transcription: Creating a Productionised Internal Tool Elizabeth Brown **Branding Science**	**Validation of R Packages for Regulated Industries** Colin Gillepsie **Jumping Rivers**
Enhancing Sensory Product Testing with R, Python and Large Language Models (LLMs) Jack Westcott and Kasidit Tipayawatn **MMR Research Worldwide Ltd**	**Automating the Mundane: Leveraging Python for Data Map** James Mullan **Data Light Solutions**
Designing an Agent-Based System to Supercharge Personal Productivity Amit Kohli **Access Social Care**	**Harnessing the Power of Snowflake and Python for Scalable Data Analytics** Fawaz Ghali **Snowflake**

17:00 - End of Day One - Evening Event

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

09:00 to 10:30 - EARL 2025 Panel Discussion and Lightning talks

Human Side of Change

Maria 'Masha' Gaganova
ATEN Consult

R wizardry: building capability and community from the bottom up

Stephen Price
City and Guilds

From Expertise to Impact: Unleashing Your Team's Potential Through Knowledge Sharing

Joanna Mocko-Lazarewicz
Appsilon

10:30 - 11:00 - Break

11:00 to 12:30 - Session Two

Stream One

R Validation – from theory to practice

Mike Smith
Pfizer

Creating validated data pipelines with Nextflow

Mark Sellors
Atorus Research

Scaling Up Enterprise Data Science in R with Arrow and Parquet

Nic Crane
NC Data Labs

Stream Two

Digging into free-text data in dog behavioural welfare datasets

Jana Muschinski & Mel Weedon
Dogs Trust

Pythonic Pathways to Carbon Clarity: Estimating Indirect Emissions

Jason Verrall
The Pensions Regulator

Simulating the Universe... with Python?

Stephen Wilkins
University of Sussex

12:30 to 13:30 - Lunch

13:30 to 15:00 - Session Three

Stream One	Stream Two
The 4th Hyperludic Accelerant - 'How can we know where we are going if we don't know where we've been?' Vincent Murphy **Hyperludic Ltd**	From R to Bar: Creating a proof of concept for catering sales forecasts Megan Bourne **Levy**
Building a RAG System For Your Business: A Guide to Delivering Genuine Impact Gabe Musker; Cosima Calder **Branding Science; Faculty AI**	Improving Analytics by using Causal Inference techniques AJ Small **Sky UK**
Classified Success: Using an LLM to Analyse Seller Calls Christopher Campbell **AutoTrader**	Explore: The Shiny app for public decision making Jeremy Horne **Datacove**

15:00 to 15::30 - Break

15:30 to 17:00 - Keynotes and Lightning Talks

Levelling-Up: An R shiny solution modelling costing decisions for level crossings

Dr Alison Telford
City and Guilds

R for Everyone: Bridging the Gap Between Data and Decision-Making

Aida Gjoka
Jumping Rivers

{AstronomR}: Statistical Frameworks for Astronomy Lovers with R

Samrit Pramanik, Kazi Abu Rousan
Atorus Research, NISER Bhubaneswar

Keynote: Wes McKinney

17:00 - Conclusion of EARL Conference 2025

Scan to book your
EARL 2025 passes.