

Quantitative Portfolio

# DONOVAN ROBERTSON

## Quantitative Analyst

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Probabilistic Forecasting · Bayesian Modelling · Decision Systems

**AVAILABLE FOR PERMANENT, CONTRACT AND PROJECT-BASED OPPORTUNITIES**

Barcelona-based · Remote across Europe and internationally

MSc

STATISTICS

7+ YEARS

QUANTITATIVE EXPERTISE

2+ YEARS

SENIOR TRADING ANALYST

[www.numerosdon.com](http://www.numerosdon.com)

ABOUT ME

SOLVING COMPLEX PROBLEMS  
WITH QUANTITATIVE PRECISION

CAREER TRAJECTORY

2020

University of Nottingham

**MSc STATISTICS**

Strengthened my foundations in probability, statistical inference and modelling, establishing the technical direction for my quantitative career.

2021-2022

Depaul

**DATA VOLUNTEERING ANALYST**

Volunteered with Depaul, improving their reporting and cutting down manual work so staff had more time to support people experiencing homelessness.

2022-2023

Sports Information Services

**TRADING ANALYST**

Joined Sports Information Services as the sole Trading Analyst in a newly established sports department, building quantitative tools and improving reporting to support faster, better-informed trading decisions. [See Case Study 03]

2023-2024

Sports Information Services

**SENIOR TRADING ANALYST**

Drove a 10% margin increase for SIS's largest B2B client, earned a Star Performer rating and promotion, whilst developing traders into junior data analyst roles.

2025 - Present

**QUANTITATIVE ANALYST**

Building and validating statistical and machine-learning systems across sports and healthcare. [See Case Studies 01, 02]



DONOVAN ROBERTSON

Quantitative Analyst

I'm drawn to problems where the answer is uncertain and the right approach is not immediately obvious.

Whether I'm forecasting sporting events, identifying healthcare risk or improving a business process, I enjoy learning the domain, building the model and testing whether the result can genuinely be trusted.

I use AI to enhance and fasten my processes but never as a substitute for statistical rigour, validation or judgement.

CORE TOOLKIT

|                     |                      |
|---------------------|----------------------|
| <b>BUILD</b>        | <b>Visualisation</b> |
| Python · R · SQL    | R Shiny · PowerBI    |
| <b>MODEL</b>        | <b>AI</b>            |
| Bayesian Statistics | Claude               |

CASE STUDY 01

IDENTIFYING  
HIDDEN RISK  
IN CANCER  
WAITING TIMES

Independent Case Study  
Hierarchical Bayesian Modelling



119k+  
records



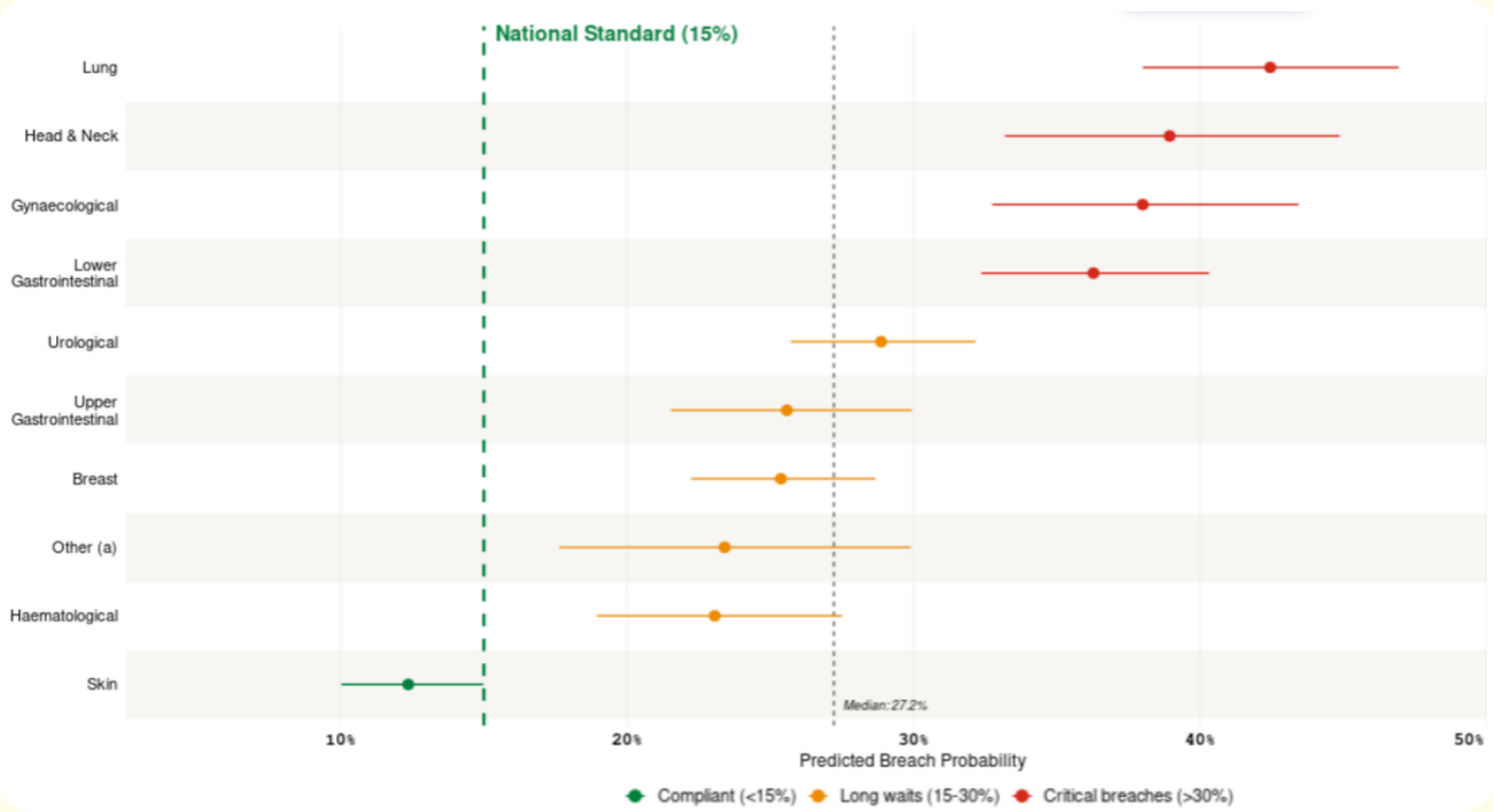
157  
trusts

FULL CASE STUDY +  
INTERACTIVE DASHBOARD  
[numerosdon.com](https://numerosdon.com)

Independent analysis using public NHS England data.  
Not commissioned by, produced for or endorsed by the NHS.

RISK ESTIMATES

Posterior means with 95% credible intervals



DECISION PRIORITISATION

| TRUST                                                  | CANCER TYPE | CURRENT RATE (2025-26) | DELTA VS 2024-25           | VOLUME           | BREACHES (2025-26) | PREDICTED BREACHES (2026-27) | PROJECTED CHANGE IN BREACHES |
|--------------------------------------------------------|-------------|------------------------|----------------------------|------------------|--------------------|------------------------------|------------------------------|
| ▼ King's College Hospital                              | Breast      | 44.8%                  | +14.2pp                    | 627              | 281                | 317                          | +36                          |
| PROJECTION BREAKDOWN — 2026-27 (627 PATIENTS/YR)       |             |                        |                            |                  |                    |                              |                              |
| BASELINE RATE                                          |             | +                      | CANCER TREND + TRUST SLOPE | =                |                    | PROJECTED RATE               |                              |
| 44.8%                                                  |             |                        | +5.68pp/yr [2.47 to 8.94]  | =                |                    | 50.5% [47.3, 53.7]           |                              |
|                                                        |             |                        |                            | CURRENT BREACHES | +                  | PROJECTED CHANGE             | = PREDICTED BREACHES         |
|                                                        |             |                        |                            | 281              |                    | +36 [15 to 56]               | 317 [296 to 337]             |
| ► King's College Hospital                              | Urological  | 37.6%                  | +9.3pp                     | 962              | 362                | 379                          | +17                          |
| ► Barking, Havering And Redbridge University Hospitals | Breast      | 45.5%                  | +17.1pp                    | 352              | 160                | 176                          | +16                          |
| ► Kingston And Richmond                                | Breast      | 44.0%                  | +13.0pp                    | 257              | 113                | 122                          | +9                           |
| ► Lewisham And Greenwich                               | Breast      | 20.8%                  | +3.7pp                     | 221              | 46                 | 55                           | +9                           |

THE CHALLENGE

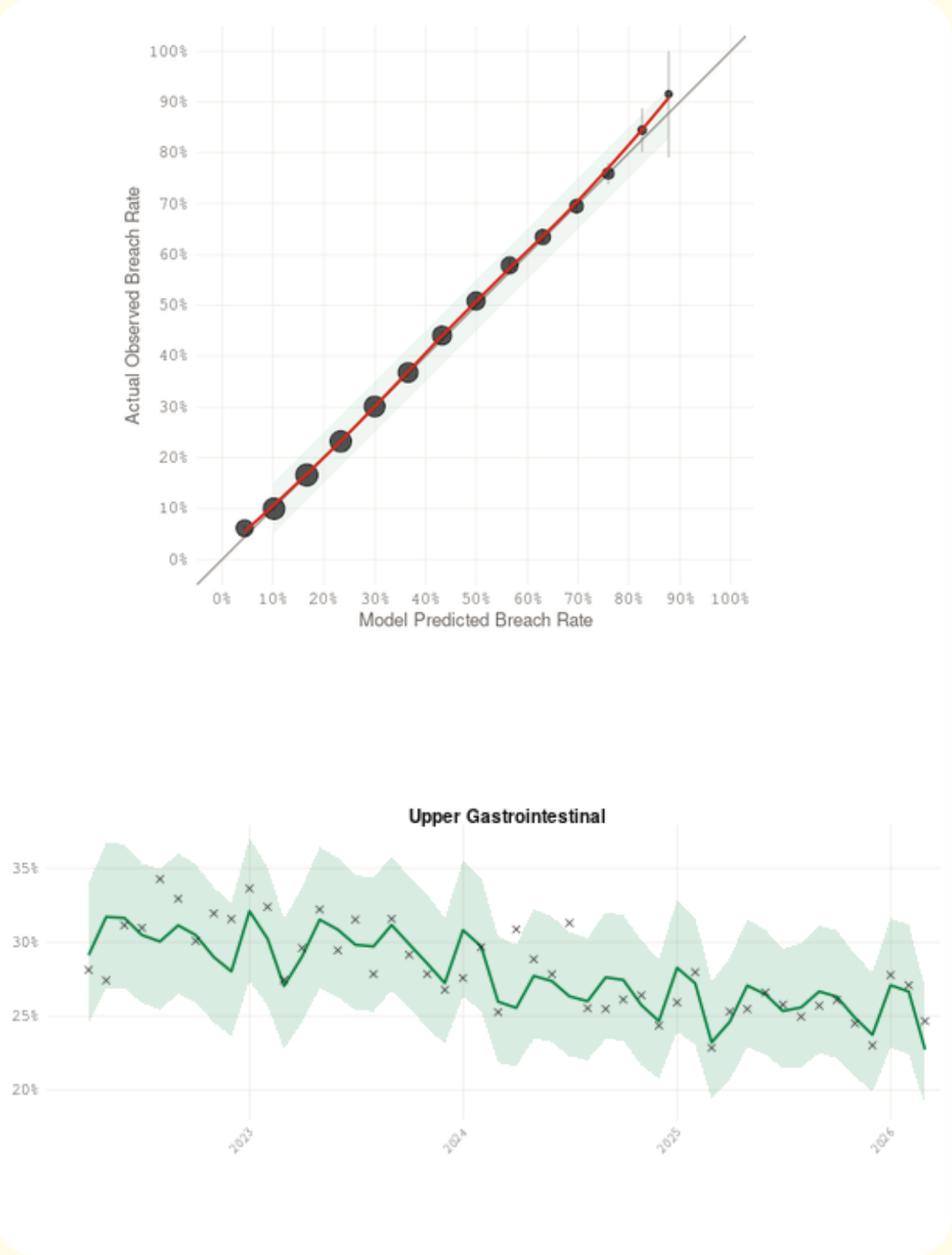
National averages and single-point estimates can mistake natural variation for persistent underperformance, directing resources towards the wrong areas.

THE APPROACH

Built a hierarchical Bayesian model with partial pooling to estimate breach risk across trusts and cancer types while quantifying uncertainty.

MODEL VALIDATION

Calibration and observed-versus-predicted performance



# FORECASTING FUTURE SPORTING EVENTS

Independent Case Study  
Probalistic Sports Modelling

## 3 SPORTS

Football · Golf · NFL

## END-TO-END

Data Ingestion · Modelling · Validation

## MARKET BENCHMARKED

Probabilities tested against market  
opening and closing lines

Sports Analysis Posts  
numerosdon.com

## PROBABILITY FORECASTS

Posterior probabilities with 90% credible intervals



## THE CHALLENGE

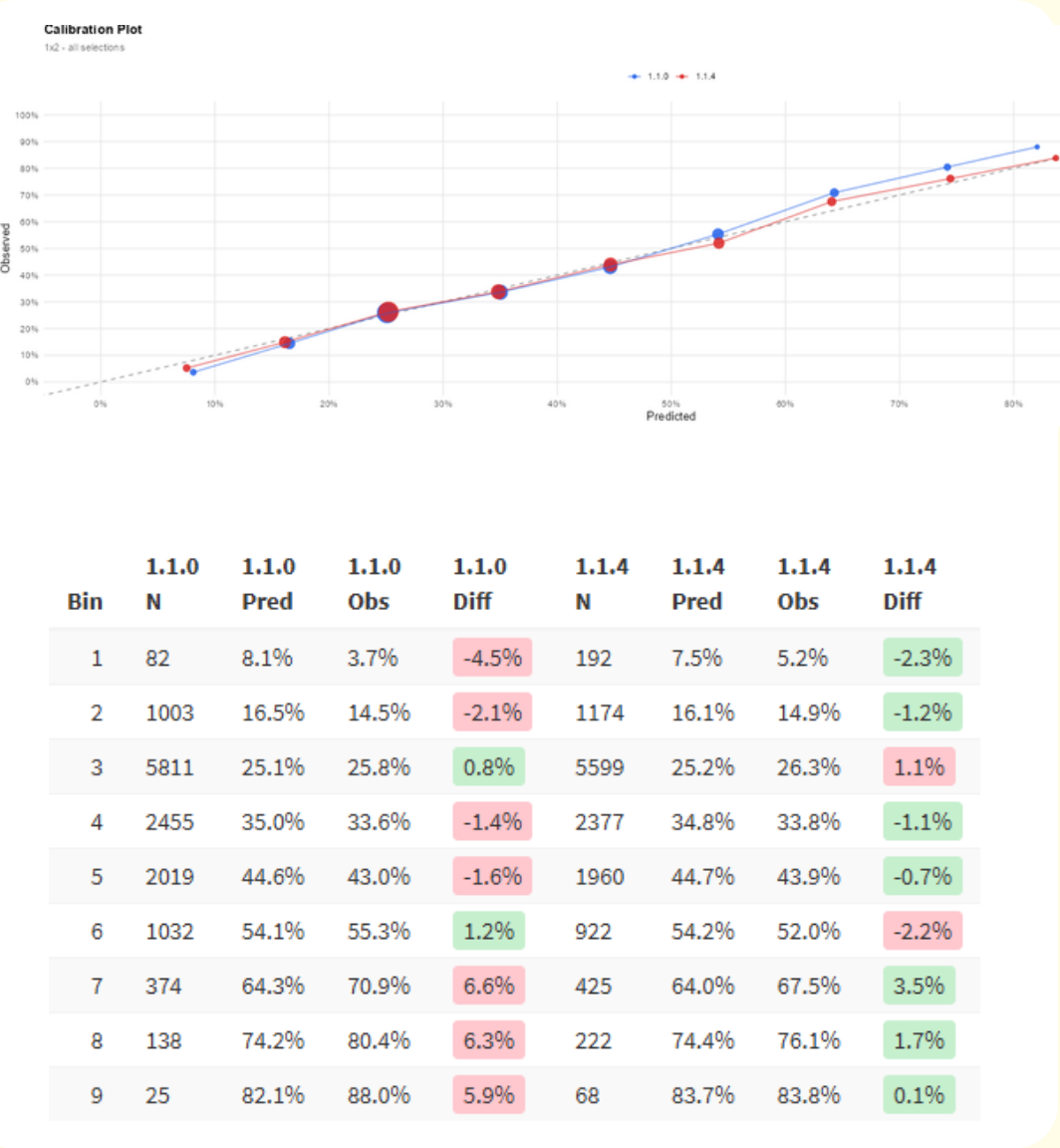
Every sport presents a different forecasting problem. Football, golf and the NFL each demand different data, assumptions and modelling methods.

## THE APPROACH

Designed and implemented an end to end forecasting system to predict upcoming sporting events whilst benchmarking against market implied probabilities.

## MODEL VALIDATION

Calibration across out-of-sample predictions



## THE IMPACT

Produces better-calibrated probabilities for upcoming events, making uncertainty visible and potential market edges easier to identify.

# BUILDING A QUANTITATIVE TRADING FUNCTION FROM THE GROUND UP

SOLE TRADING ANALYST · END-TO-END OWNERSHIP

Professional Case Study  
Quantitative Infrastructure & Trading Analytics

10%  
margin increase for largest B2B client

MULTI-DAY → 15 mins  
Reporting turnaround

## DEVELOPED ANALYTICAL CAPABILITY

Mentored traders into the department's  
first junior data analyst roles

Full Professional Background at  
numerosdon.com

### WHAT I BUILT

01

#### CENTRALISED DATA

From fragmented spreadsheets  
to validated SQL source of truth

structured tables · reusable data  
· consistent definitions

02

#### QUANTITATIVE RESEARCH

Statistical frameworks identifying pricing  
anomalies and profitability errors

analysis · model monitoring  
· trading decisions

03

#### EXECUTIVE REPORTING

Automated dashboards translating  
complex data into actions

PowerBI · recurring reporting  
· multiple stakeholder levels

### THE CHALLENGE

A rapidly growing trading operation needed  
reliable data and analysis under extreme time  
pressure, where mistakes carried immediate  
financial consequences.

### THE APPROACH

Built the quantitative infrastructure  
from scratch: centralised data,  
statistical research frameworks  
and automated reporting across multiple  
organisation levels

### THE IMPACT

Improved client margin by 10%,  
reduced reporting from days  
to minutes and developed traders  
into junior data analysts.



# NEED A QUANTITATIVE ANALYST?

Let's turn your data into trusted evidence you can act on

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