

Accelerating Access to Life-Saving Treatments to Patients

pumas^{AI}

Augmenting healthcare intelligence with predictive analytics that turn data into life-saving decisions



Our data-analytical tools help
make data-driven decisions
more efficiently



PumasCP



DeepPumas



Pumas



PumasQSP



We humanize technology to
provide personalized
treatments for patients



Lyv



Find the shortest development
path for regulatory approval,
with us



Scientific &
Strategic Consulting

pumas^{AI}

PAGANZ 2024 Pumas Introduction

Mohamed Tarek

Instructor's background

- I am a senior product engineer at PumasAI Inc. (3 years)
- My background is in engineering (BSc and MSc) and computer science (PhD)
- Core strength in math and programming of statistical software:
 - Bayesian inference,
 - Optimal design of experiments, and
 - (Scientific) machine learning.
- Contact: mohamed@pumas.ai

Rough timeline

Time	Activity
08:30	Registration and coffee
09:00	Setting up and introduction to Pumas cloud
09:30	Basic introduction to Julia
10:00	Morning tea
10:30	Pumas model building, data reading and estimation workflow
12:00	Lunch
13:00	Uncertainty quantification, simulation and dose selection
15:00	Afternoon tea
15:30	Joint time to event and tumor size model
17:00	Close

Announcements

- Pre-conference workshops at Population Approach Group in Europe (PAGE) in June 2024
 - Workshop 1: Scientific Modeling Augmented by Machine Learning with DeepPumas
 - Workshop 2: A Practical Bayesian Analysis Workflow in Pumas
- Pumas-Labs: <https://pumas.ai/pumas-labs>
- Remote internship program: <https://pumasai.com/careers/pumasai-remote-internship-program>
- We are hiring: <https://pumasai.com/careers>
- Sales contact: sales@pumas.ai
- Consulting contact: consulting@pumas.ai

JuliaHub setup

- Create an account on juliahub.com
- Go to the following URL to get credit added to your account
 - <https://shorturl.at/uRU03>
- Launch a custom instance (8 vCPUs and 32 GB of memory)

Download the workshop material

- Download https://github.com/PumasAI-Labs/PAGANZ_2024_NLME_Workshop as a zip file
- Upload the zip file to JuliaHub by dragging and dropping
- Go to the terminal and type ``unzip PAGANZ_2024_NLME_Workshop.zip``