

#### **CONTACT US**

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# COURSES & WORKSHOPS

Expand your skillset by enrolling in captivating courses taught by skilled educators.





## BRINGING YOUR CODING SKILLS TO THE NEXT LEVEL

# Welcome

#### **WHAT WE OFFER**

Our courses prioritize essential competencies for career and business advancement. We offer tailored programs for both individuals and companies, utilizing an experiential approach that involves hands-on exercises for active learning. Our professional trainers have accumulated years of practical experience and consistently review our materials to ensure suitability for diverse audiences. We use open-source tools in our curriculum.

Take advantage of our attractive offers, including early-bird discounts, discounts for multiple workshops, and discounts for groups of multiple attendees.

#### **Public Workshops**

We organize public workshops covering a range of technologies.

#### **Private Workshops**

We provide personalized workshops by customizing the content and use cases to meet your specific needs.

### Content **R PROGRAMMING R SHINY MODULE MODULE** 4 .R R basics: objects, My first Shiny App functions & operations 5 Data analysis with Make an outstanding Tidyverse Shiny App 6 Advanced Shiny **Programming R** deployment 7 Build an R package Build an R package

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R basics: Objects, functions and operations

### **INTRODUCTION TO R** ENHANCE YOUR DATA SCIENCE TOOLKIT



Are you searching for a professional and efficient introduction to R programming? Our "R for Absolute Beginners" workshop is the perfect starting point.

You'll learn the fundamentals of R programming from the ground up, building a solid foundation for future learning. Explore the full potential of the R language by gaining a comprehensive understanding of objects, common functions, and basic operations.

This workshop is ideal for individuals with no prior experience in R programming. Join us and take the first step towards mastering R.

- 1. Discover R and its opportunities
- 2. Install Rstudio and its packages
- 3. How to get help?
- 4. Using functions to perform operations
- 5. Explore vectors , matrices, lists and data frames
- 6. Apply family
- 7. Import, export and read data in R



### **GAINING INSIGHT FROM DATA** ENHANCE YOUR DATA SCIENCE TOOLKIT

Make data analysis accessible to all with our easy-to-read approach

Unlock the simplicity of data analysis with our expert training in the tidyverse framework.

Learn how to write efficient and readable code for data manipulation, including techniques for subsetting, modifying, joining, and summarizing your datasets. Gain insight from your data and make informed decisions with our best practices.

No prior experience with R is necessary, though it can be beneficial. Is this workshop right for you? Absolutely.

- 1. Introduction to the tidyverse framework
- 2. Learn how to use the pipe operator '%>%'
- 'dplyr' common functions: 'mutate', 'filter', 'summarize' and more
- 4. Analyze grouped data



- Convenience functions: 'n', 'slice\_\*', 'distinct' and more
- 6. Joining, pivoting and unpivoting
- 7. 'tidyr' for condition based rule



Develop your thinking skills with our expert guidance

### **PROGRAMMING R** THINK LIKE A PROGRAMMER

Improve your R skills by writing algorithms as R functions and applying them in your data analysis. Expand your capabilities with R by mastering the most efficient techniques for writing robust, maintainable, and readable code.

Become an R programmer and incorporate common software development practices into your process for optimal results.

Is this workshop right for you? Absolutely, if you're interested in efficiently writing your own algorithms in R.

- 1. Write your own R functions
- 2. Conditional execution in base R and Tidyverse
- 3. Explicit looping and apply family
- 4. Make code more efficient with vectorization
- 5. Structure and modularize your code
- 6. Debugging and logging strategies





Package your R code: documentation, (unit) testing, control package dependencies.

### **BUILD AN R PACKAGE** FROM R SCRIPTING TO PACKAGING



Professionalize the way you work with R and pave your way towards a production-ready code.

Build an R package properly using the right development tools provided by the R eco-system, learn how to document it, face the importance of testing a package and tackle problems like package dependencies. Make the transition away from R scripting and package your code to obtain a robust product.

While prior experience with R is not required, having some knowledge can be advantageous. Is this workshop suitable for you? Absolutely.

- 1. Build an R package locally in Rstudio
- 2. Explor tools like 'devtools' and 'usethis'
- 3. Understand DESCRIPTION and NAMESPACE
- 4. Document it with 'roxygen' tags
- 5. Write unit tests and check package consistency
- 6. Control package dependencies with 'renv'



## BECOMING AN R DEVELOPER

WORK IN A DEVELOPMENT TEAM

Host and R package on GitHub, share it with the team, implement CI, collaborate.

Work in a development team professionally, automate processes and collaborate in a structured way in order to safely migrate your code to production.

Make the transition from R user to R developer and share an R package within your team using Version Control and GitHub repository. Automate Continuous Integration (CI) using GitHub Action to check the package robustness and correctness upon migration.

Collaborate with your team to develop an R package further in a controlled way using GitFlow approach.

Is this workshop right for you? Absolutely, if you're interested in efficiently writing your own algorithms in R.

- Start with a simply R package with documentation, unit tests, renv set up.
- 2. Connect your code to `Git` version control
- 3. Safely host it on a `GitHub` Repository
- 4. Implement Continuous Integration (CI) with `GitHub Actions`
- 5. Apply `GitFlow` in a collaborative setup
- 6. Develop your R package further





Shiny enables dynamic data visualizations that empower you with insights for effective data-driven decision making.



Would you like to provide interactive visualization and data exploration features to business users who do not have R and data science skills? Give yourself a boost for data-driven decision-making! Discover how easy it can be with Shiny to develop an application for both prototyping and productive use, without relying on web development or external BI tools!

Is this workshop for you?

Yes, if you have been introduced to R - no need for HTML or Javascript

- Become familiar with the structure of a shiny app
- 2. Understand reactivity and how it is used in Shiny
- 3. Discover Shiny input widgets

- 4. Render output tables and plots according to user input
- 5. Show output on demand, including download
- 6. Develop your first app in R Shiny



## MAKE AN OUTSTANDING SHINY APP

IMPROVE YOUR UI / UX DESIGNING SKILLS

Your Shiny apps will never be the same. We help you master it and have a great outcome!

Have you created your first Shiny app and would you like to bring it to the next level, customize it and make ir more accessible to users?

Discover how to improve the User Interface for a more professional look, and learn how to better organize the content to derive insight more easily. Is this workshop for you?

Yes, if you have been introduced to R and R Shiny – no need to know HTML, CSS or Javascript

- 1. Apply easy customization of Shiny elements
- 2. aesthetics
- 3. Explore different UI / UX structure, layouts and organization
- 4. Use CSS and HTML to customize the layout of your app



- 5. Experiment with other Shiny-related packages
- 6. Discover the dashboard layout



Dig deeper into professional Shiny development and its deployment

### ADVANCED SHINY DEPLOYMENT THINK LIKE A PROGRAMMER

The Shiny-related universe is ever-expanding, with new packages appearing every day. Would you like to make a Shiny app shine?

Discover how to improve the User Experience (UX) and the User Interface (UI) for a more professional look! Fill the UI with interactive DT Tables and Plotly Graphs. Moreover, learn how to make a dashboard and how to better organize the content to derive insights more easily.

Is this workshop for you?

Yes, if you have been introduced to R and R Shiny - no need to know HTML, CSS or Javascript

- 1. Write your own R functions
- 2. Conditional execution in base R and Tidyverse
- 4. Make code more efficient with vectorization
- 5. Structure and modularize your code
- 6. Debugging and logging strategies
- 3. Explicit looping and apply family





Deploy a Shiny web application like a pro. Adopt the best practices for a controlled, collaborative and automated deployment to production.



Do you want to learn the best way to bring a Shiny App safely to production Do you intend facilitating collaboration and maintaining high quality standards through (automated) testing and automated processes?

Discover how R Shiny can be used professionally in enterprise!

#### Is this workshop for you?

Yes, if you have been introduced to R & to R Shiny. You will need a GitHub account, create one if you don't have it yet.

- Use best development practices (version control, modularization, package structure and testing)
- 2. Control dependencies with 'renv'
- 3. Automate CI/CD with GitHub

- 4. Create branches, including branch protection
- 5. Apply gitflow in a collaborative setup

# Who We Are

A Swiss-based consulting company boasts an interdisciplinary and multi-national team with extensive specialist knowledge in mathematics, statistics, and economics. This team is comprised of professionals with experience in financial services, software engineering, and IT architecture.

Furthermore, this company also has a wide teaching expertise in courses, workshops, and individual training which engages various audiences. The combination of these skillsets assures a holistic approach to consultancy tailored to the exact needs of the customer.



#### Guido is a socio-economic statistician who

**MEET YOUR INSTRUCTOR** 

studied and worked in the Netherlands, Italy and England before finding his final settlement in Zürich where he became a founding partner of Mirai Solutions. During his studies he mainly focused on finding a new approach to the explanation of poverty dynamics and in his MSc on the research of imputation techniques. Later on he applied his experience and customer-focused attitude in the risk management field and in leading consulting projects.

### **OUR EXPERTISE**

- 1. Data Analytics
- 2. Modeling
- 3. Software Development

- 4. DevOps
- 5. Training
- 6. Coaching

## AN INSIDE LOOK AT OUR PRICES AND DISCOUNTS

# **Course Fees**

### **ENROLL IN A SINGLE WORKSHOP**

Workshop	Early Bird Price	Full Price
R basics: objects, functions & operations	Free	Free
Data analysis with Tidyverse	CHF 145,-	CHF 159,-
Programming R	CHF 145,-	CHF 159,-
Build an R package	CHF 145,-	CHF 159,-
Becoming an R developer	CHF 145,-	CHF 159,-
My first Shiny App	CHF 145,-	CHF 159,-
Make an outstanding Shiny App	CHF 145,-	CHF 159,-
Advanced Shiny deployment	CHF 145,-	CHF 159,-
Build an R package	CHF 145,-	CHF 159,-

#### ENROLL IN MULTIPLE WORKSHOPS WITHIN A SERIES AND SAVE

CHF 145 / 159				
CHF 145 / 159	CHF 119			
CHF 145 / 159	CHF 119	CHF 119	+2	
CHF 145 / 159	CHF 119	CHF 119	CHF 119	1+3
CHF 145 / 159	CHF 119	CHF 119	CHF 119	CHF 119



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### **CONTACT US NOW!**

We are happy to answer your questions.



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