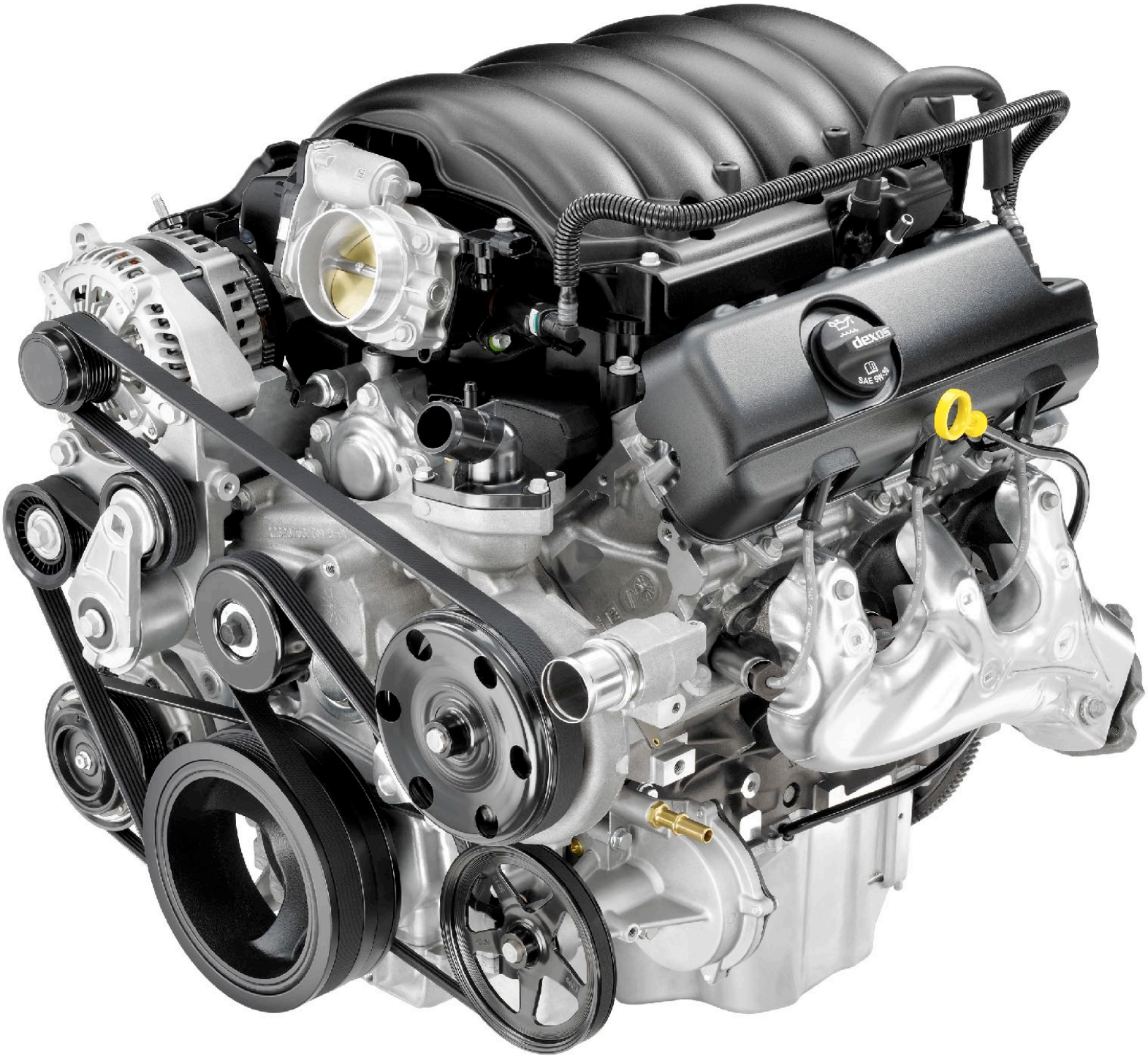
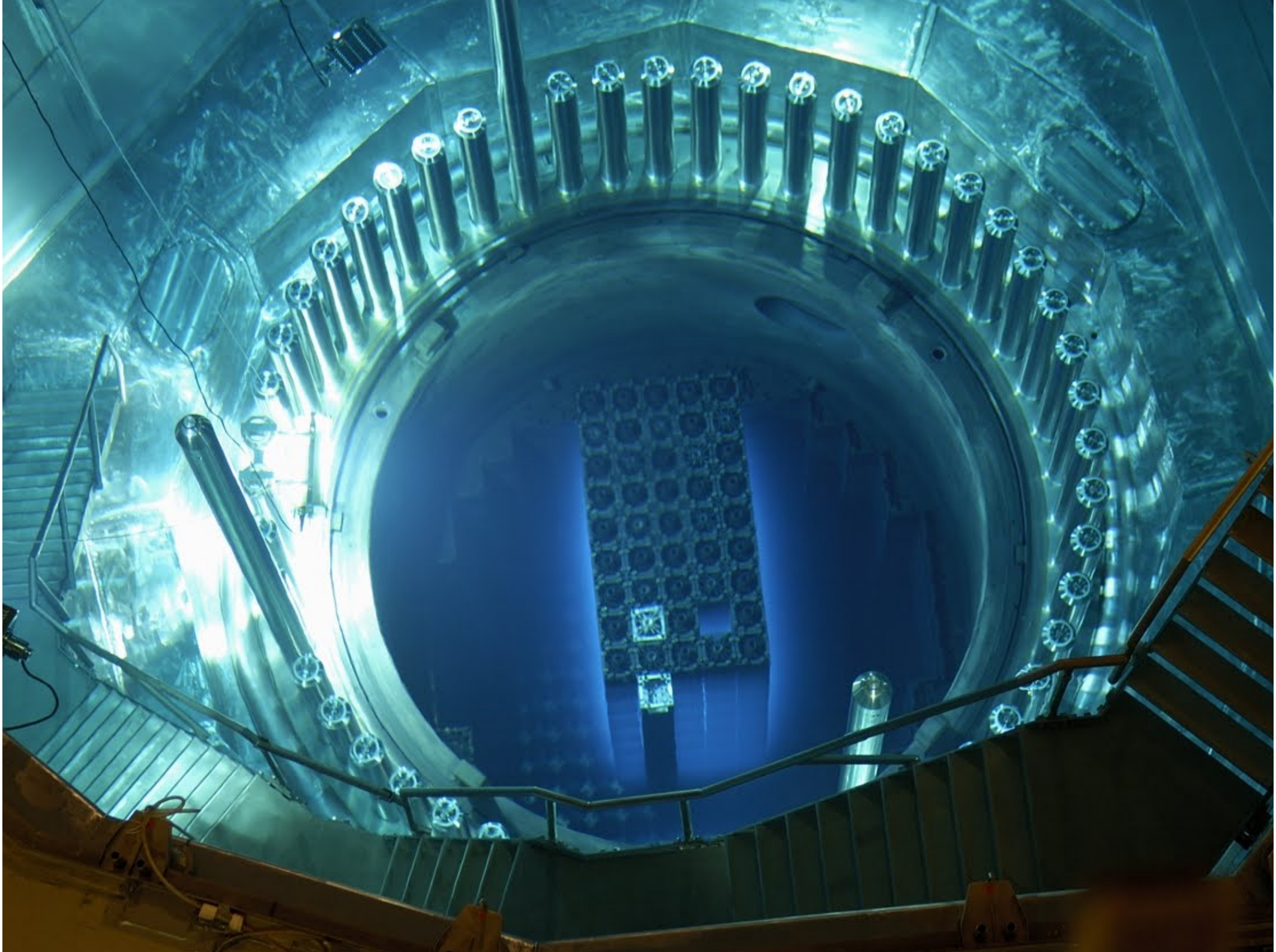
Can Everyone be Trained in AI?

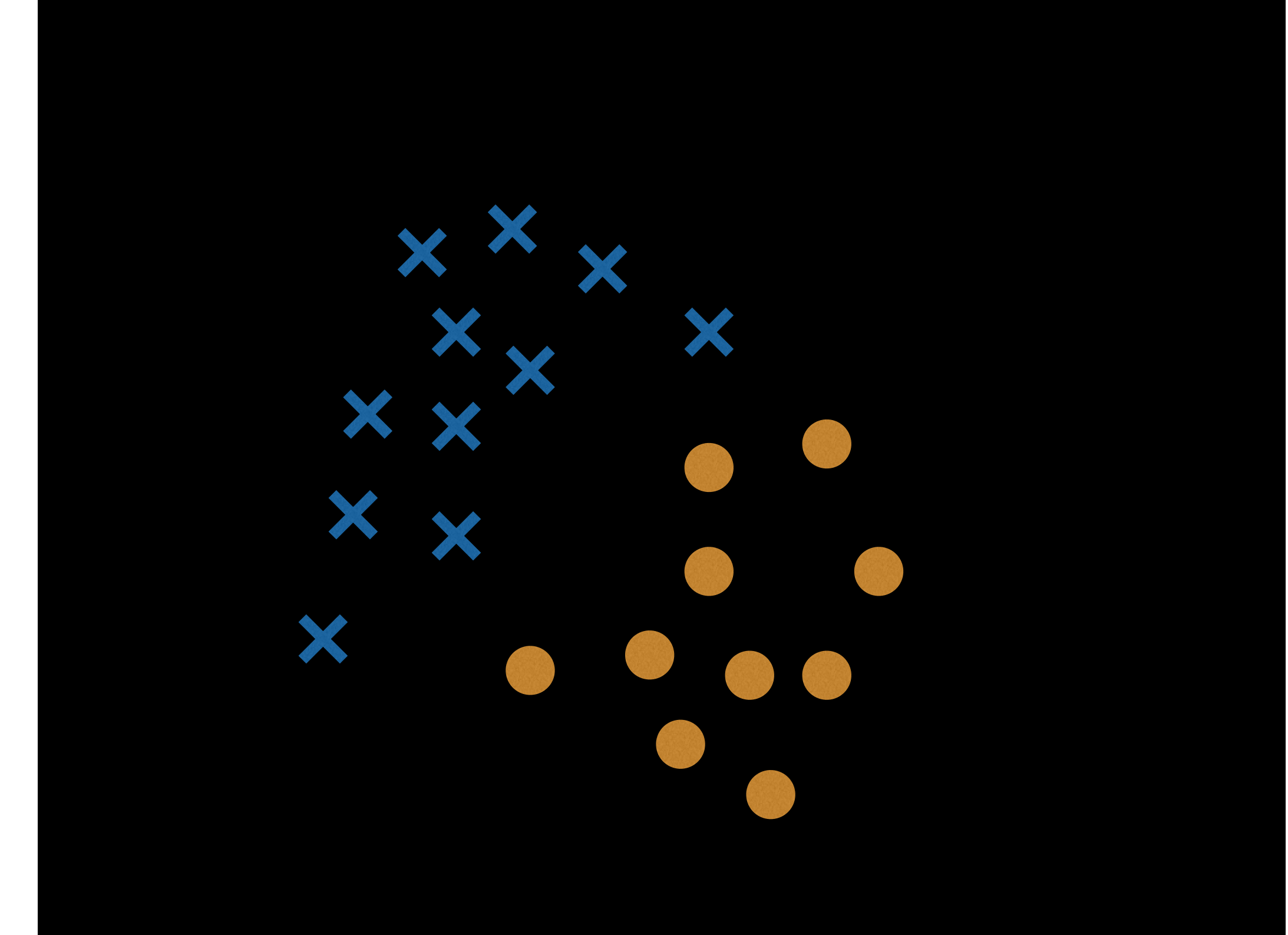
data science
machine learning

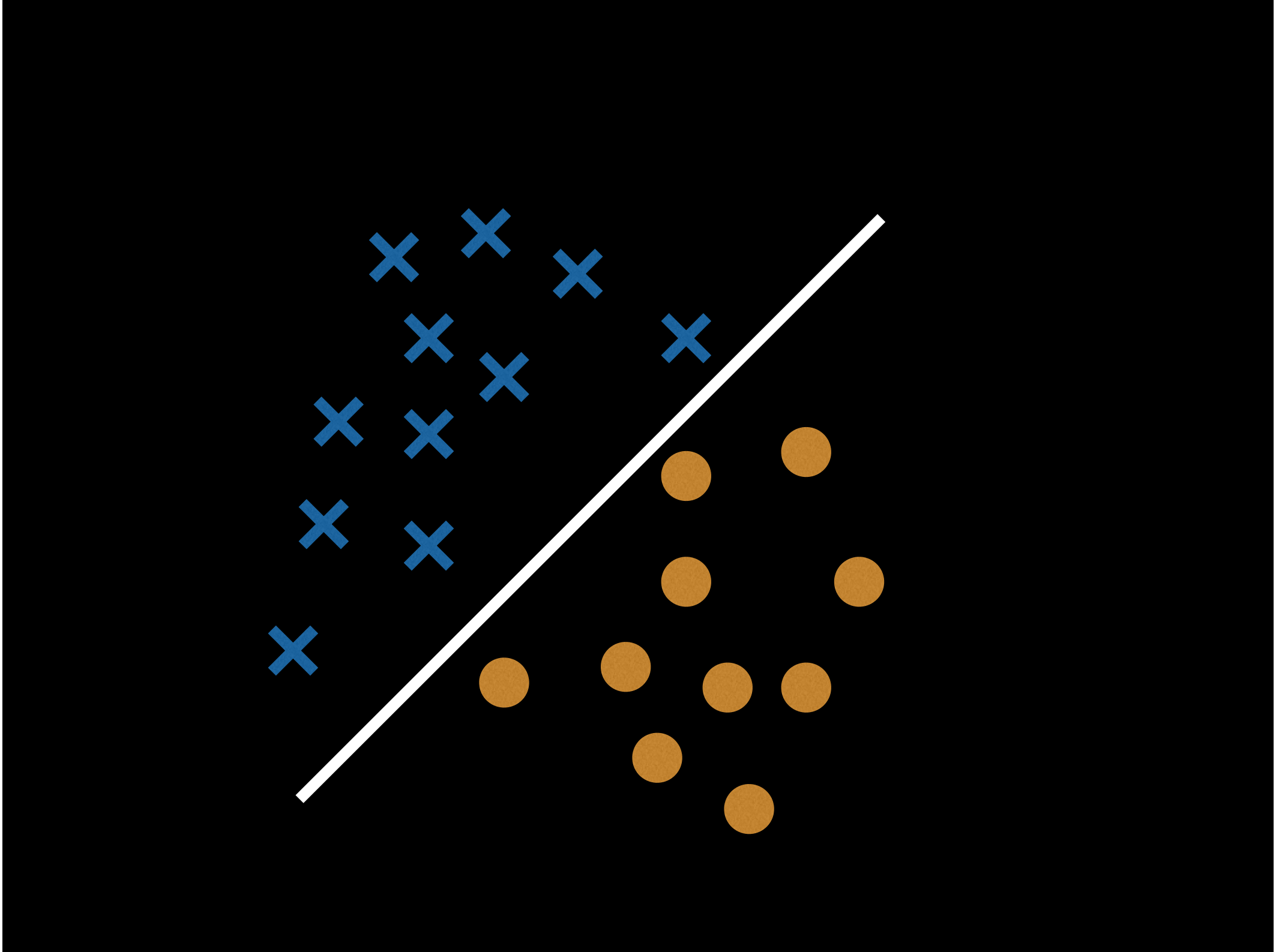
Blaž Zupan
University of Ljubljana, Slovenia
Baylor College of Medicine, Houston, USA


dexos
SAE 5W-30



```python
def h(theta, x):
    """Logistic function"""
    return 1. / (1 + np.exp(-x.dot(theta)))


def grad_ascent(x, y, alpha=0.001, epochs=1000000):
    """Gradient ascent."""
    theta = np.zeros(x.shape[1]).T
    for i in range(epochs):
        theta += alpha * (y - h(theta, x)).dot(x)
    return theta
```





Assumptions

Artificial intelligence is the
defining technology of the 21st century.

AI will affect all scopes of life.

At present, except for a few enlightened ones,
AI is a mystery to most of us.

AI Training

How can we train the essentials of AI?

Can we do this within hours? Days? Weeks?

Can we focus on concepts rather than algorithmic details, mathematics, and statistics?

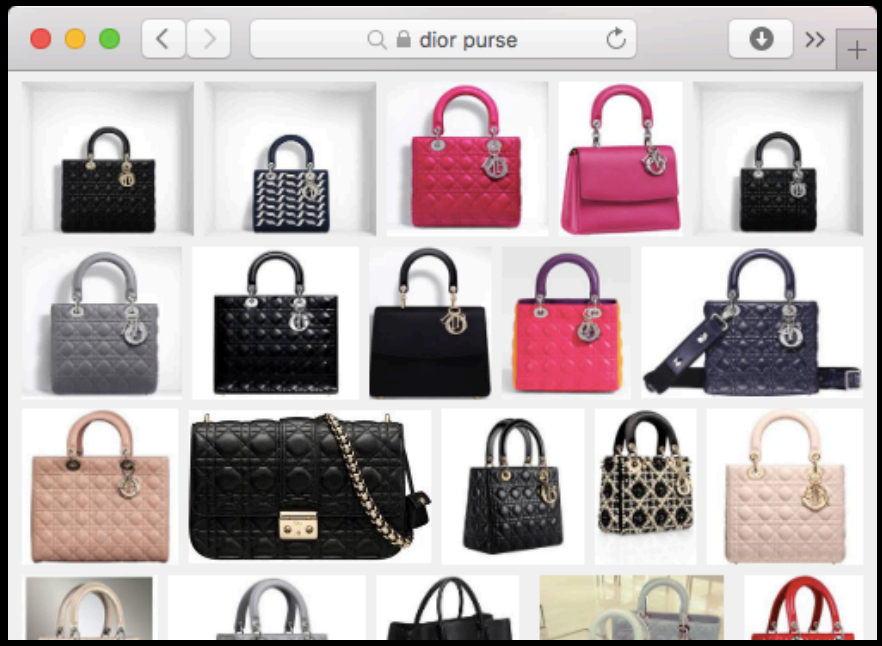
Can we train AI without any programming?

Can indeed everyone be trained in AI?

Purse Analytics: A Story

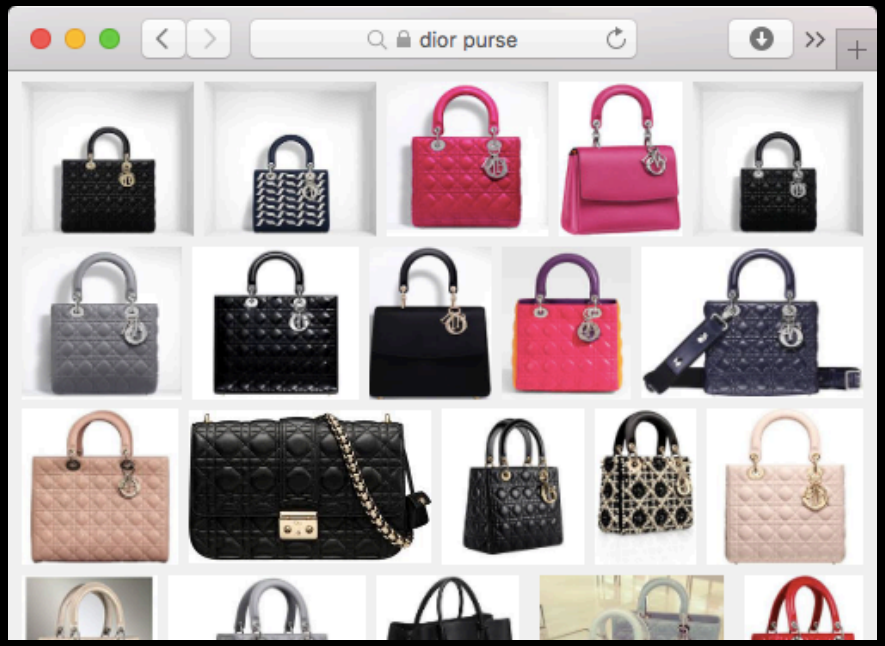
```python
n_terms = int(input("How many terms? "))

# first two terms
n1, n2 = 0, 1
count = 0

# check if the number of terms is valid
if n_terms <= 0:
    print("Please enter a positive integer")
# if there is only one term, return n1
elif n_terms == 1:
    print("Fibonacci sequence up to", n_terms, ":")
    print(n1)
# generate fibonacci sequence
else:
    print("Fibonacci sequence:")
    while count < n_terms:
        print(n1)
        nth = n1 + n2
        # update values
        n1 = n2
        n2 = nth
        count += 1
```

Purse Analytics: A Story

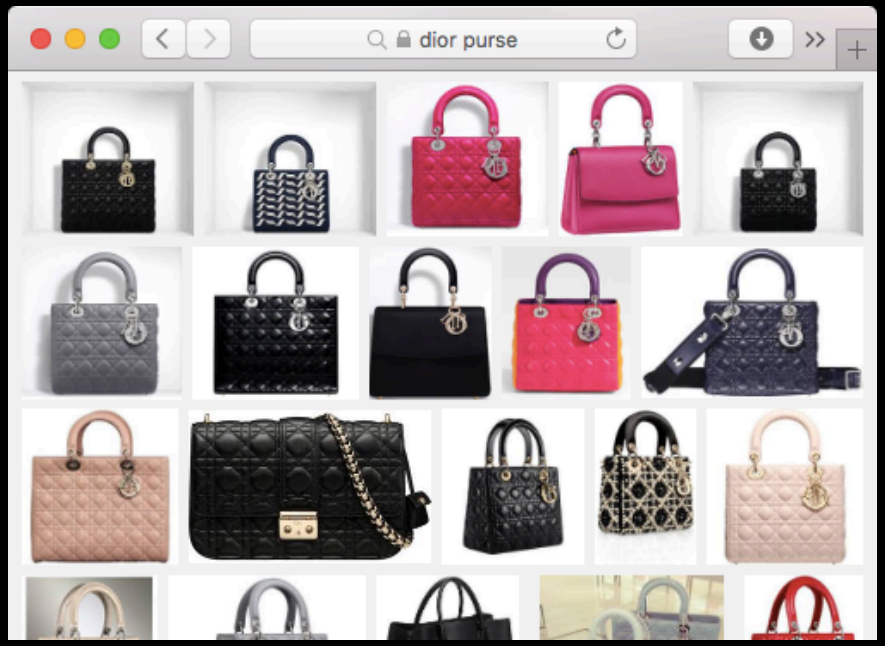

dior purse

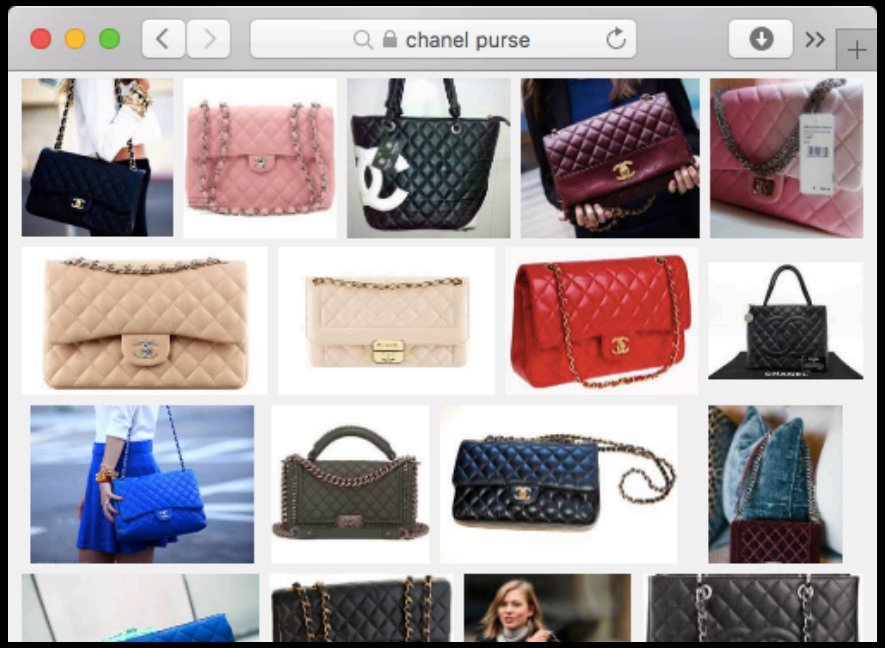

Dior


hermes purse
460 × 579 - br...


dior purse


hermes purse
460 × 579 - br...


dior purse


chanel purse

live demo here,
see http://youtube.com/orangedatamining for similar

Concepts Covered in 15 min

Data representation

Distance estimation

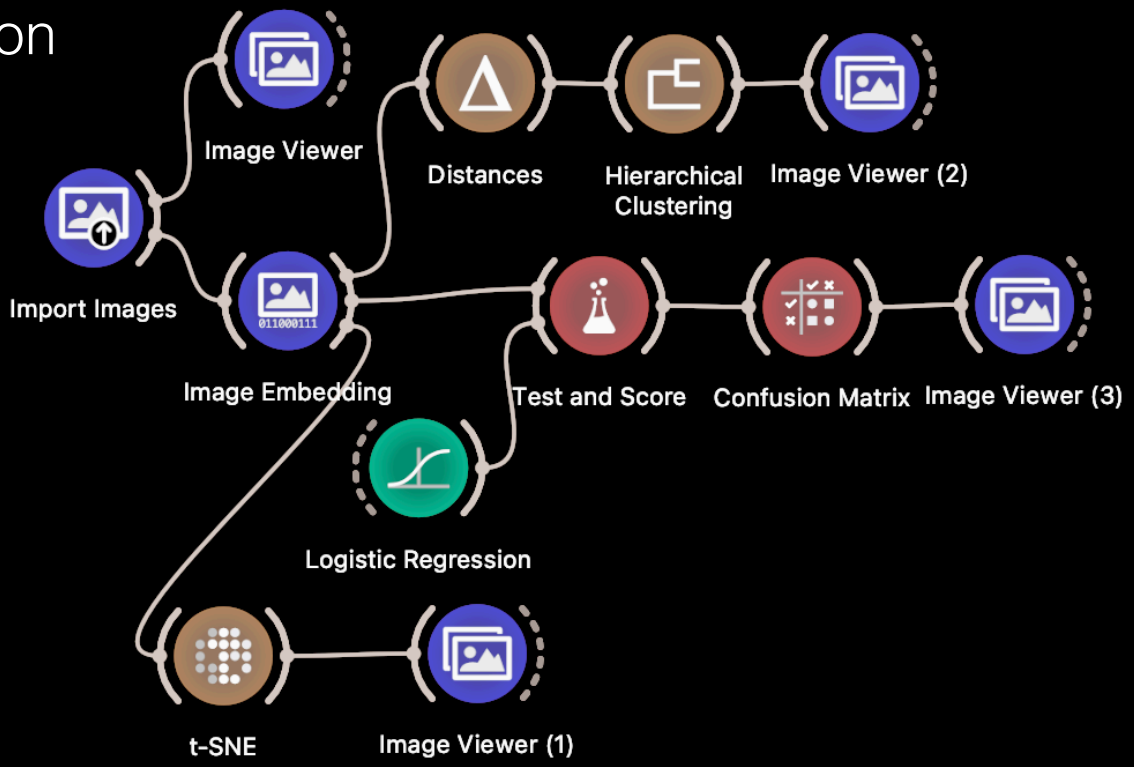
Clustering & Cluster explanation

Data embedding

Classification

Accuracy estimation

Prediction



Training of AI

How can we train the essentials of AI?

Can we do this within hours? Days? Weeks?

Can we focus on concepts rather than algorithmic details and statistics?

Can we train AI without any programming?

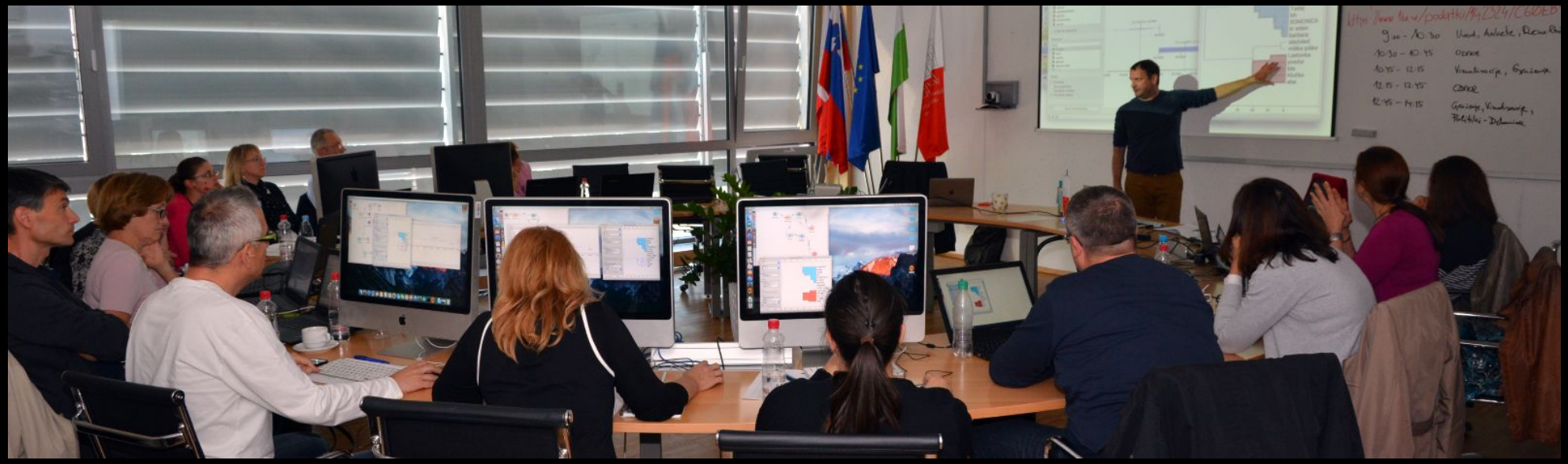
Can indeed everyone be trained in AI?

Houston

Kolkata

Pavia

one of over ten different workshops for public administration



a workshop for telecomm agency

“girls go data mining” workshop

Training of AI

How can we train the essentials of AI?

Can we do this within hours? Days? Weeks?

Can we focus on concepts rather than algorithmic details and statistics?

Can we train AI without any programming?

Can indeed everyone be trained in AI?

Training of AI

How can we train the essentials of AI?

Can we do this within hours? Days? Weeks?

Can we focus on concepts rather than algorithmic details and statistics?

Can we train AI without any programming?

Can indeed everyone be trained in AI?

Partnership with Google

20 elementary and high schools in Slovenia

Design ten different two-hour workshops

Carry out 40 workshops

Train-the-trainer workshops

Long-term support of trainers

Image Viewer


maple


maple


maple

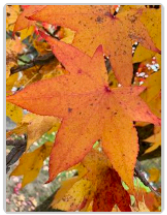

maple

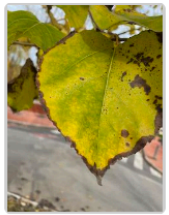

maple

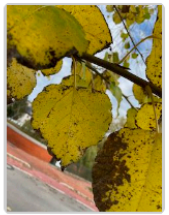

maple

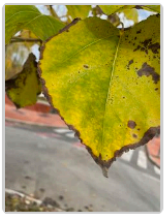

maple


maple


maple

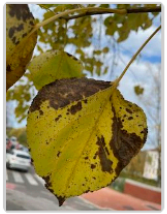

black poplar


black poplar

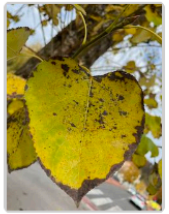

black poplar


black poplar


black poplar

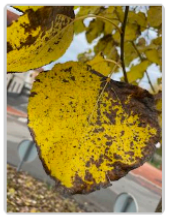

black poplar


black poplar


black poplar


black poplar


black poplar


black poplar

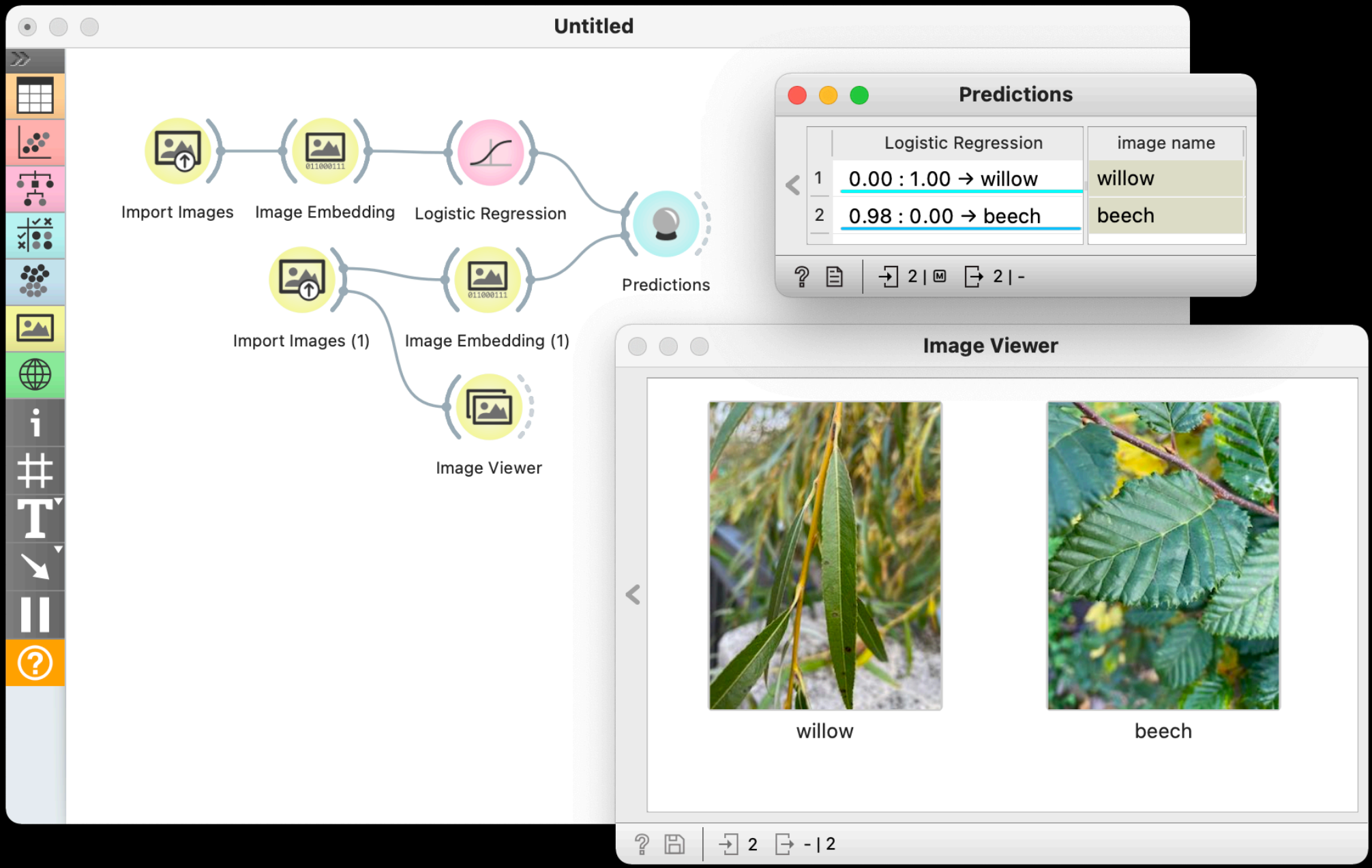

hazel

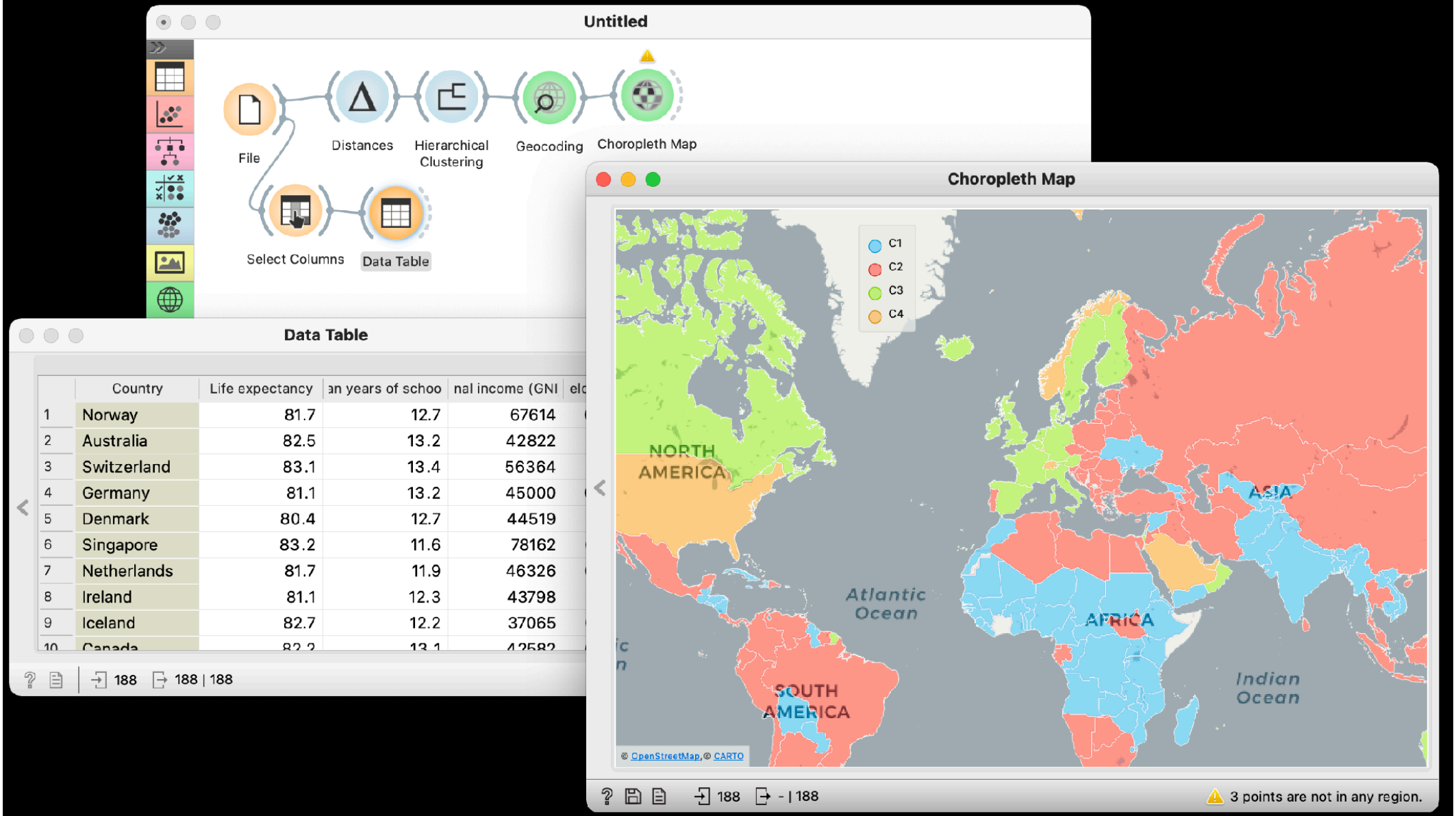

hazel

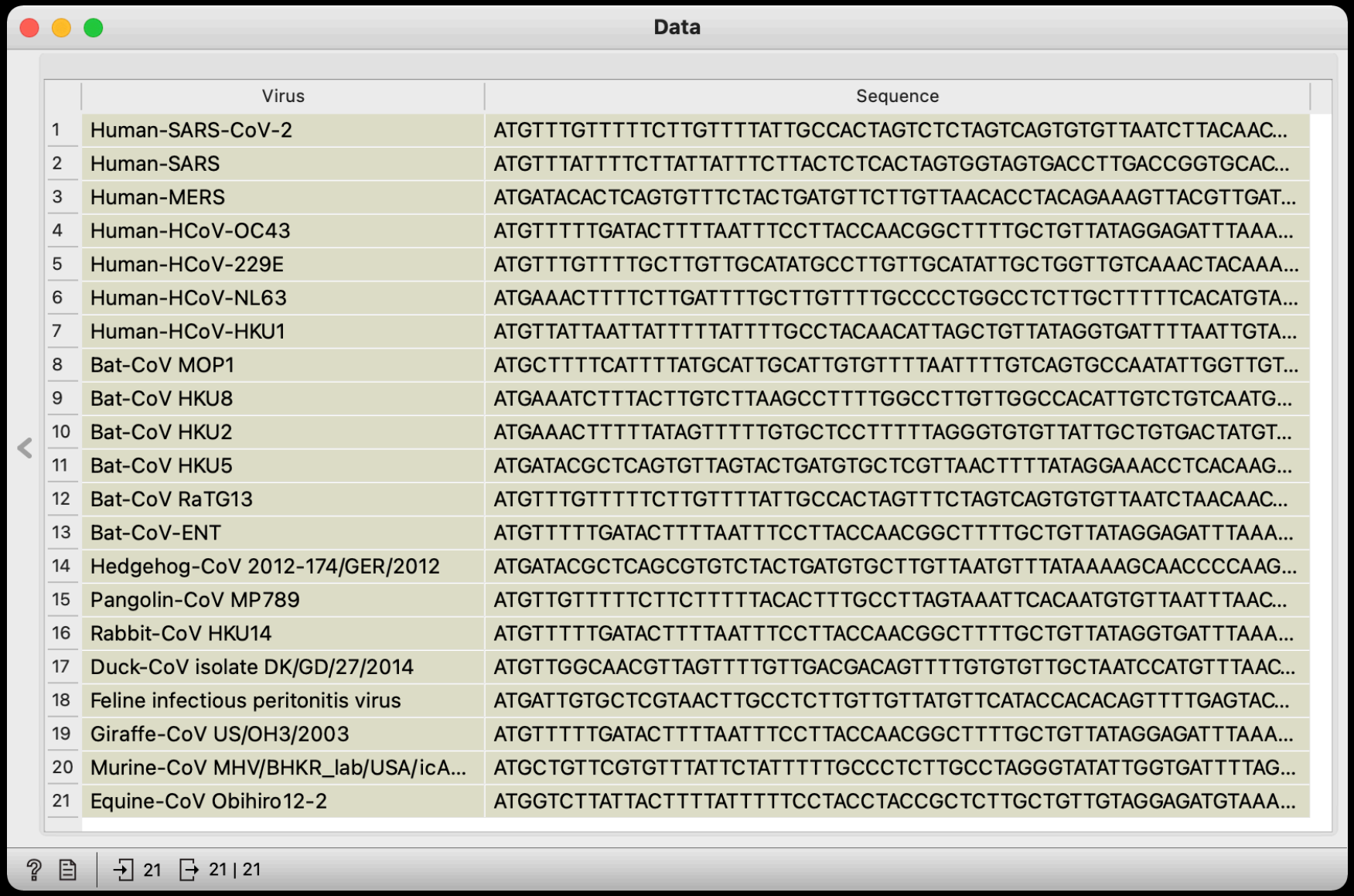

hazel

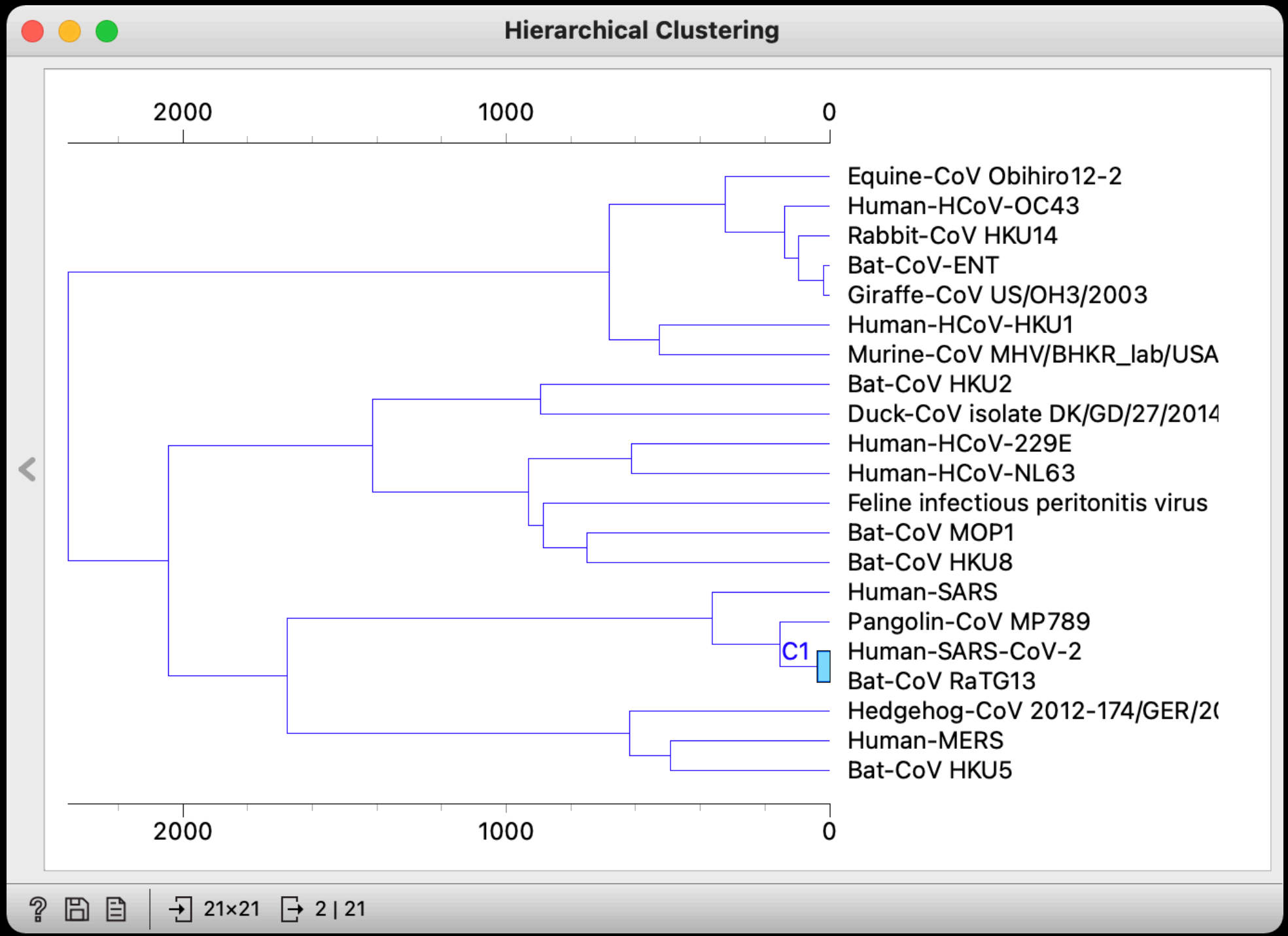

hazel

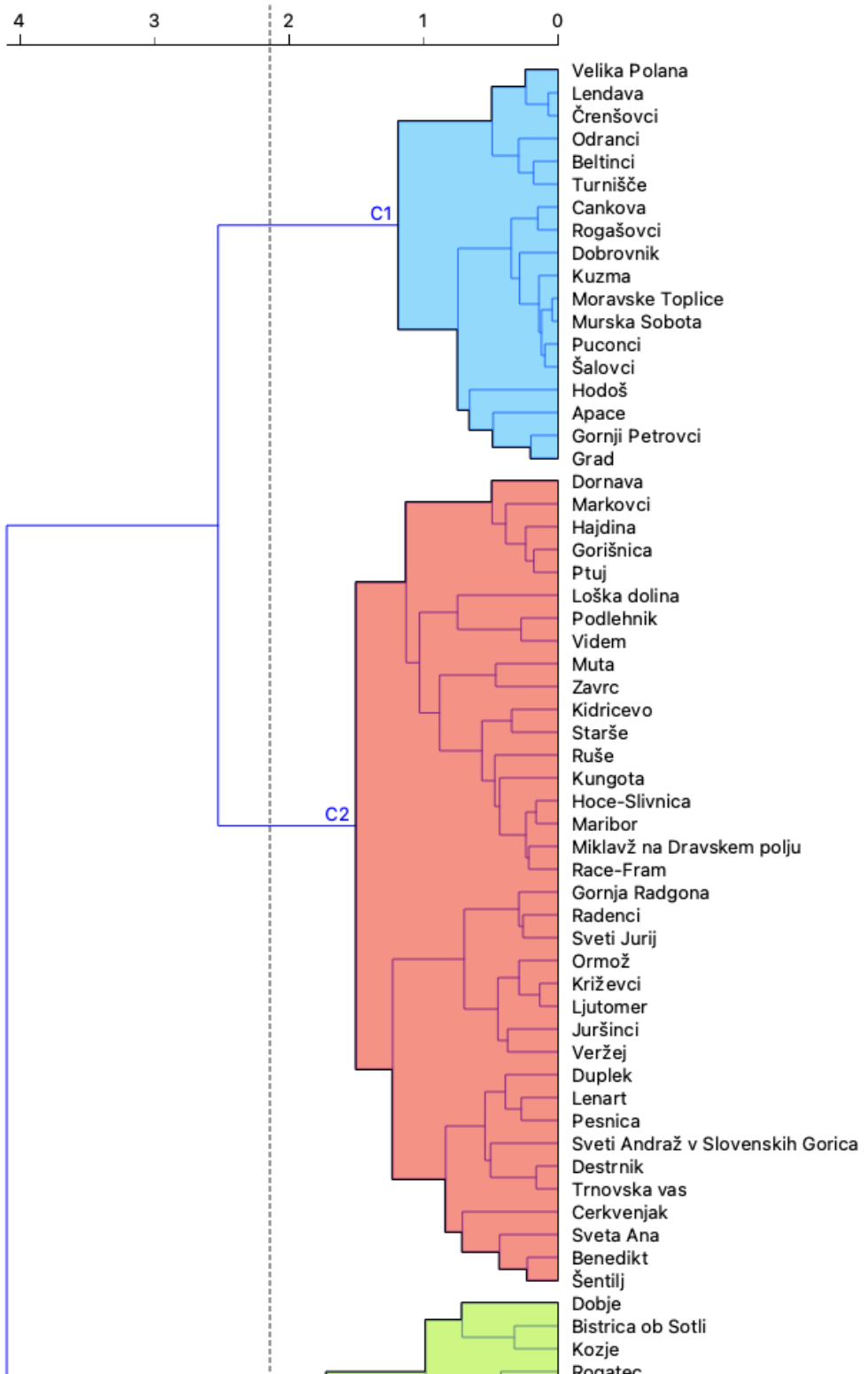
93 - | 93

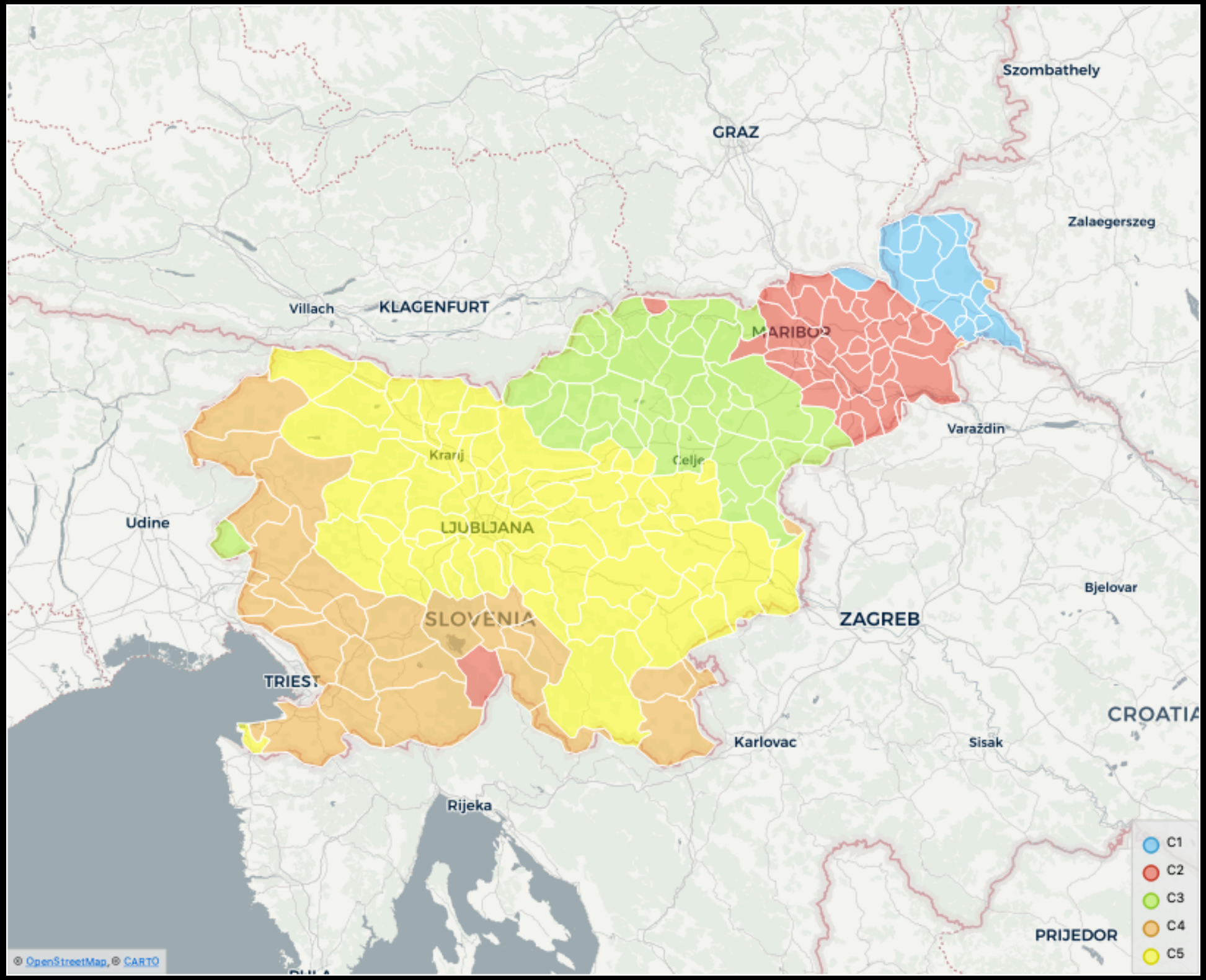

Untitled
Import Images
Image Embedding
Logistic Regression
Predictions
Import Images (1)
Image Embedding (1)
Image Viewer
Predictions
Logistic Regression
image name
1
0.00 : 1.00 → willow
willow
2
0.98 : 0.00 → beech
beech
2 | M
2 | -
Image Viewer
willow
beech
2
- | 2

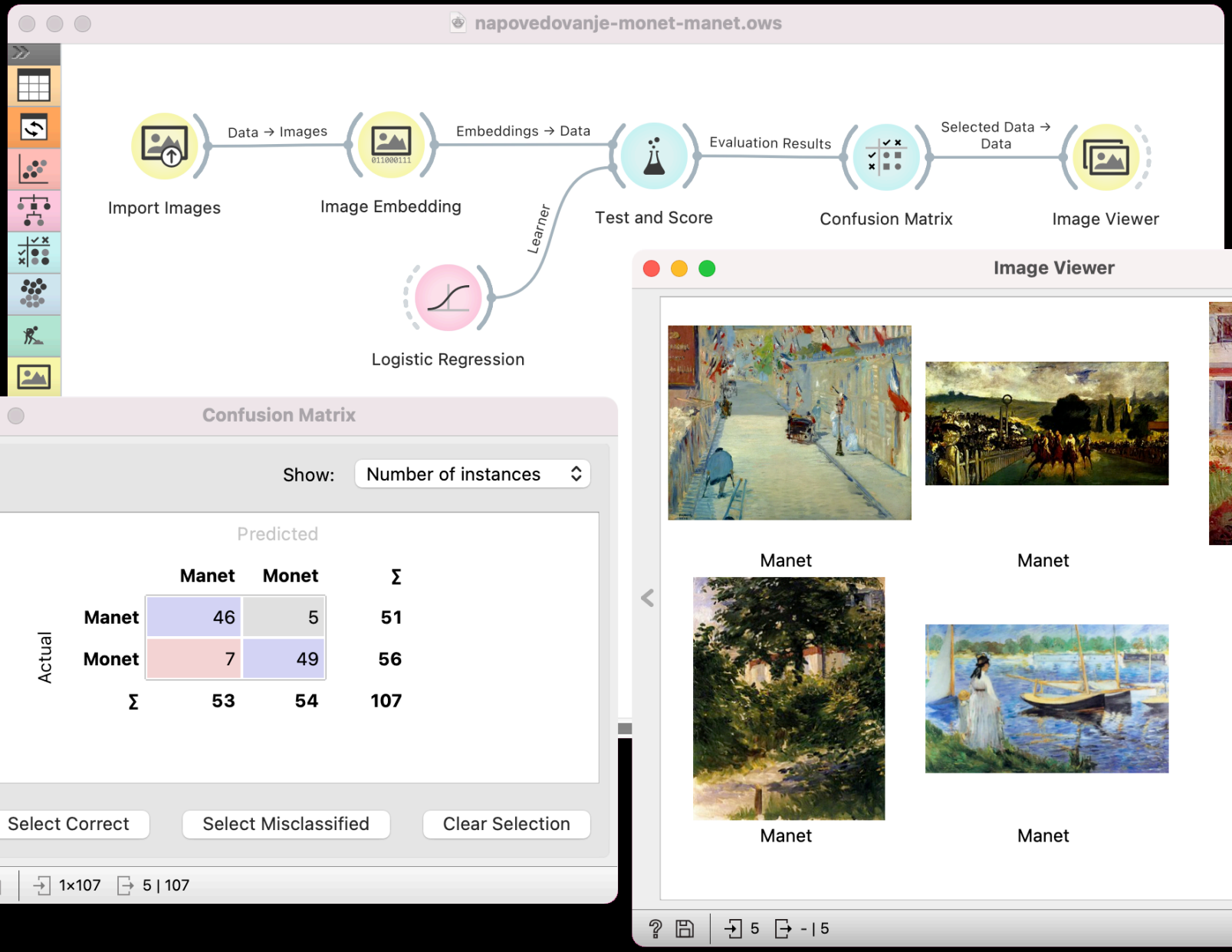

Untitled
File
Distances
Hierarchical Clustering
Geocoding
Choropleth Map
Select Columns
Data Table
Data Table
Country
Life expectancy
an years of schoo
nal income (GNI
1 Norway 81.7 12.7 67614
2 Australia 82.5 13.2 42822
3 Switzerland 83.1 13.4 56364
4 Germany 81.1 13.2 45000
5 Denmark 80.4 12.7 44519
6 Singapore 83.2 11.6 78162
7 Netherlands 81.7 11.9 46326
8 Ireland 81.1 12.3 43798
9 Iceland 82.7 12.2 37065
188
188 | 188
Choropleth Map
C1
C2
C3
C4
NORTH AMERICA
Atlantic Ocean
ASIA
AFRICA
SOUTH AMERICA
Indian Ocean
© OpenStreetMap, © CARTO
188
- | 188
3 points are not in any region.


Data
Virus
Sequence
1 Human-SARS-CoV-2 ATGTTTGTTTTTCTTGTTTTATTGCCACTAGTCTCTAGTCAGTGTGTTAATCTTACAAC...
2 Human-SARS ATGTTTATTTTCTTATTATTTCTTACTCTCACTAGTGGTAGTGACCTTGACCGGTGCAC...
3 Human-MERS ATGATACACTCAGTGTTTCTACTGATGTTCTTGTTAACACCTACAGAAAGTTACGTTGAT...
4 Human-HCoV-OC43 ATGTTTTTGATACTTTTAATTTCCTTACCAACGGCTTTTGCTGTTATAGGAGATTTAAA...
5 Human-HCoV-229E ATGTTTGTTTTGCTTGTTGCATATGCCTTGTTGCATATTGCTGGTTGTCAAACTACAAA...
6 Human-HCoV-NL63 ATGAAACTTTTCTTGATTTTGCTTGTTTTGCCCCTGGCCTCTTGCTTTTTCACATGTA...
7 Human-HCoV-HKU1 ATGTTATTAATTATTTTTATTTTGCCTACAACATTAGCTGTTATAGGTGATTTTAATTGTA...
8 Bat-CoV MOP1 ATGCTTTTCATTTTATGCATTGCATTGTGTTTTAATTTTGTCAGTGCCAATATTGGTTGT...
9 Bat-CoV HKU8 ATGAAATCTTTACTTGTCTTAAGCCTTTTGGCCTTGTTGGCCACATTGTCTGTCAATG...
10 Bat-CoV HKU2 ATGAAACTTTTTATAGTTTTTGTGCTCCTTTTTAGGGTGTGTTATTGCTGTGACTATGT...
11 Bat-CoV HKU5 ATGATACGCTCAGTGTTAGTACTGATGTGCTCGTTAACTTTTATAGGAAACCTCACAAG...
12 Bat-CoV RaTG13 ATGTTTGTTTTTCTTGTTTTATTGCCACTAGTTTCTAGTCAGTGTGTTAATCTAACAAC...
13 Bat-CoV-ENT ATGTTTTTGATACTTTTAATTTCCTTACCAACGGCTTTTGCTGTTATAGGAGATTTAAA...
14 Hedgehog-CoV 2012-174/GER/2012 ATGATACGCTCAGCGTGTCTACTGATGTGCTTGTTAATGTTTATAAAAGCAACCCCAAG...
15 Pangolin-CoV MP789 ATGTTGTTTTTCTTCTTTTTACACTTTGCCTTAGTAAATTCACAATGTGTTAATTTAAC...
16 Rabbit-CoV HKU14 ATGTTTTTGATACTTTTAATTTCCTTACCAACGGCTTTTGCTGTTATAGGTGATTTAAA...
17 Duck-CoV isolate DK/GD/27/2014 ATGTTGGCAACGTTAGTTTTGTTGACGACAGTTTTGTGTGTTGCTAATCCATGTTTAAC...
18 Feline infectious peritonitis virus ATGATTGTGCTCGTAACTTGCCTCTTGTTGTTATGTTCATACCACACAGTTTTGAGTAC...
19 Giraffe-CoV US/OH3/2003 ATGTTTTTGATACTTTTAATTTCCTTACCAACGGCTTTTGCTGTTATAGGAGATTTAAA...
20 Murine-CoV MHV/BHKR_lab/USA/icA... ATGCTGTTCGTGTTTATTCTATTTTTGCCCTCTTGCCTAGGGTATATTGGTGATTTTAG...
21 Equine-CoV Obihiro12-2 ATGGTCTTATTACTTTTATTTTTCCTACCTACCGCTCTTGCTGTTGTAGGAGATGTAAA...
21
21 | 21


Hierarchical Clustering
2000
1000
0
Equine-CoV Obihiro12-2
Human-HCoV-OC43
Rabbit-CoV HKU14
Bat-CoV-ENT
Giraffe-CoV US/OH3/2003
Human-HCoV-HKU1
Murine-CoV MHV/BHKR_lab/USA
Bat-CoV HKU2
Duck-CoV isolate DK/GD/27/2014
Human-HCoV-229E
Human-HCoV-NL63
Feline infectious peritonitis virus
Bat-CoV MOP1
Bat-CoV HKU8
Human-SARS
Pangolin-CoV MP789
C1
Human-SARS-CoV-2
Bat-CoV RaTG13
Hedgehog-CoV 2012-174/GER/2(
Human-MERS
Bat-CoV HKU5
2000
1000
0
21×21
2 | 21


4
3
2
1
0
C1
C2
Velika Polana
Lendava
Črenšovci
Odranci
Beltinci
Turnišče
Cankova
Rogašovci
Dobrovnik
Kuzma
Moravske Toplice
Murska Sobota
Puconci
Šalovci
Hodoš
Apace
Gornji Petrovci
Grad
Dornava
Markovci
Hajdina
Gorišnica
Ptuj
Loška dolina
Podlehnik
Videm
Muta
Zavrc
Kidricevo
Starše
Ruše
Kungota
Hoce-Slivnica
Maribor
Miklavž na Dravskem polju
Race-Fram
Gornja Radgona
Radenci
Sveti Jurij
Ormož
Križevci
Ljutomer
Juršinci
Veržej
Duplek
Lenart
Pesnica
Sveti Andraž v Slovenskih Gorica
Destrnik
Trnovska vas
Cerkvenjak
Sveta Ana
Benedikt
Šentilj
Dobje
Bistrica ob Sotli
Kozje


Szombathely
GRAZ
Zalaegerszeg
Villach
KLAGENFURT
MARIBOR
Varaždin
Krarij
Celje
Udine
LJUBLJANA
Bjelovar
SLOVENIA
ZAGREB
TRIEST
CROATIA
Karlovac
Sisak
Rijeka
PRIJEDOR
C1
C2
C3
C4
C5
© OpenStreetMap, © CARTO


napovedovanje-monet-manet.ows
Import Images
Data → Images
Image Embedding
Embeddings → Data
Test and Score
Learner
Logistic Regression
Evaluation Results
Confusion Matrix
Selected Data → Data
Image Viewer
Confusion Matrix
Show:
Number of instances
Predicted
Manet
Monet
Σ
Actual
Manet 46 5 51
Monet 7 49 56
Σ 53 54 107
Select Correct
Select Misclassified
Clear Selection
1×107
5 | 107
Image Viewer
Manet
Manet
Manet
Manet
Manet
5
- | 5

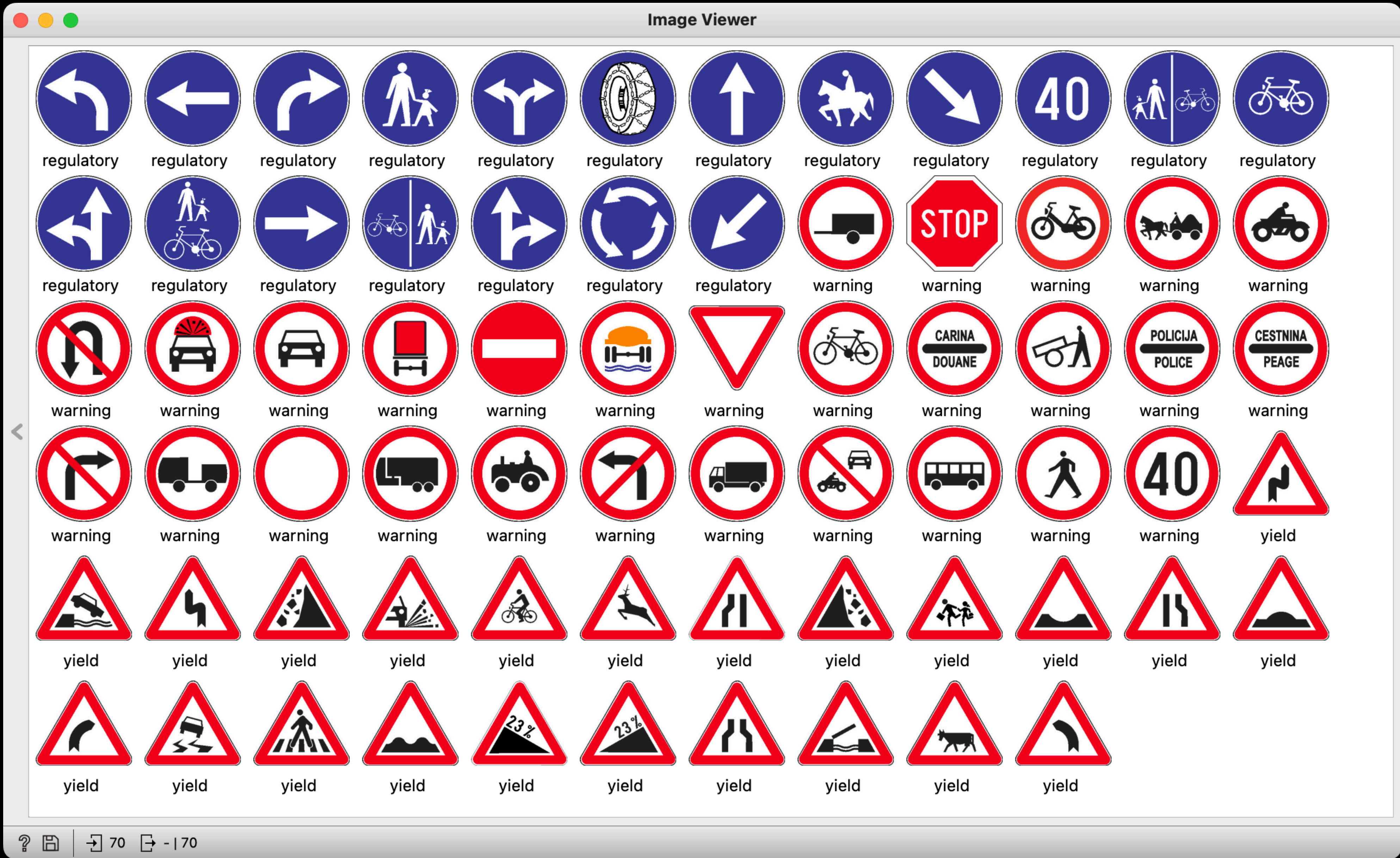
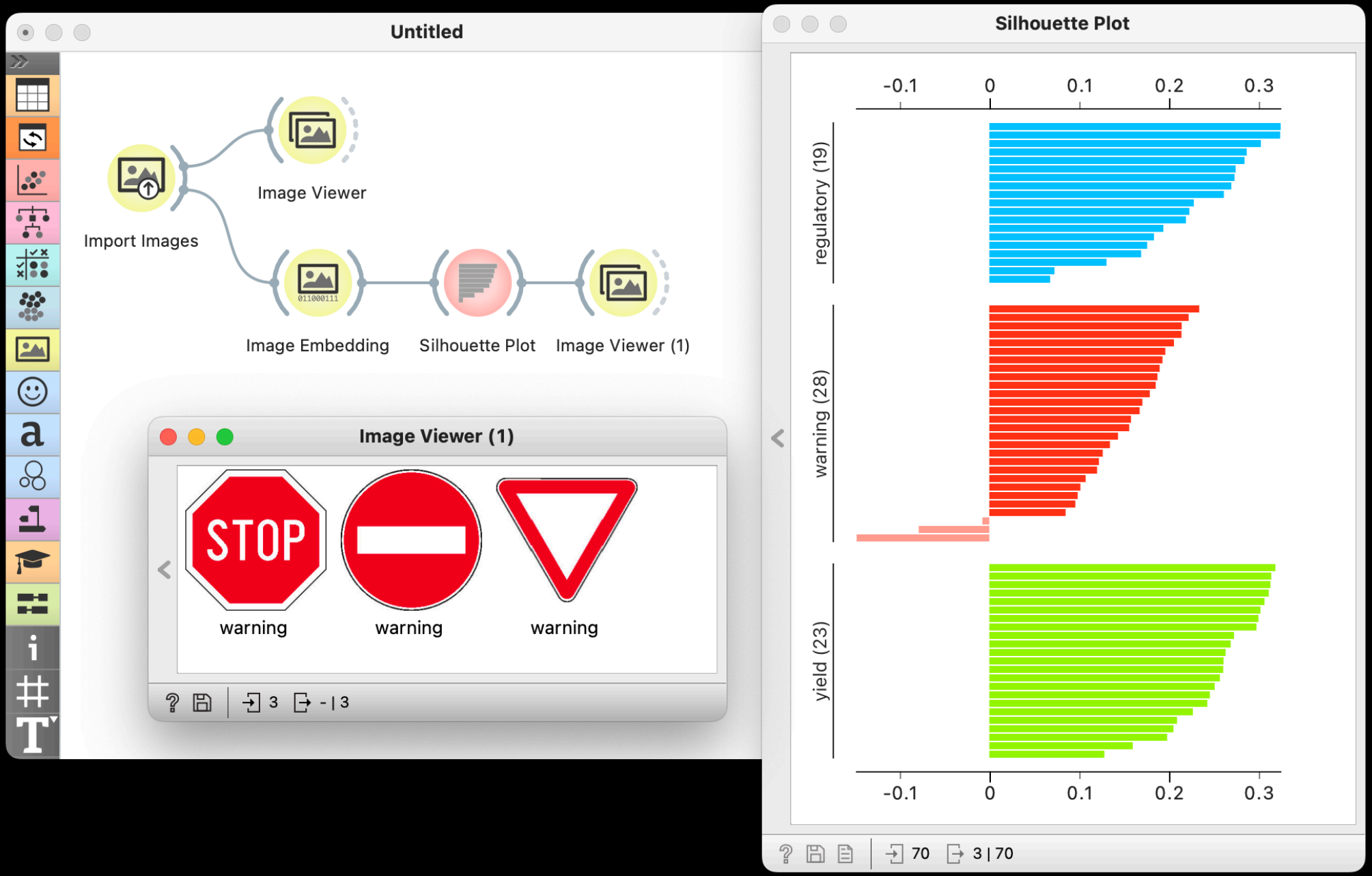
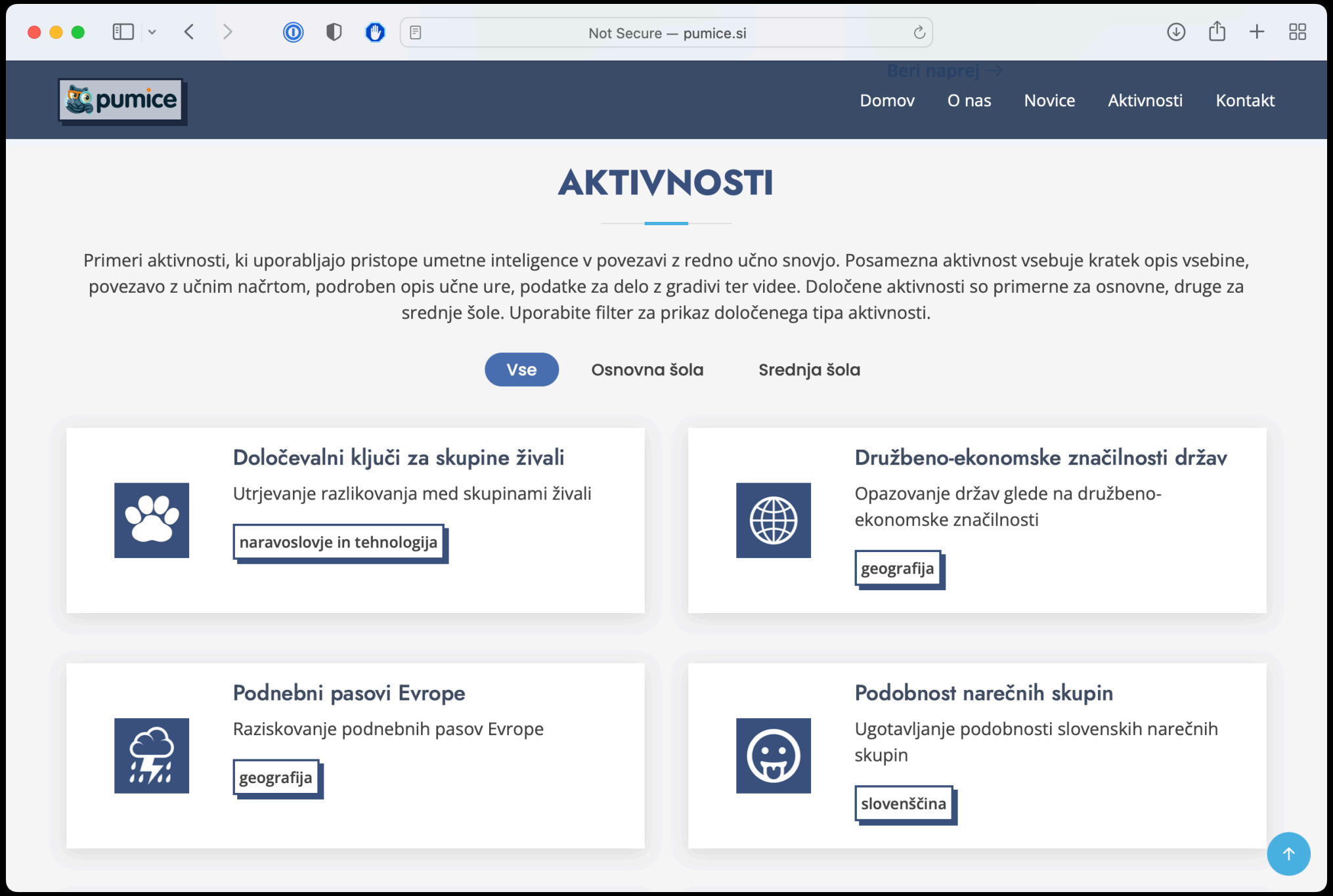


Image Viewer
regulatory regulatory regulatory regulatory regulatory regulatory regulatory regulatory regulatory 40 regulatory regulatory regulatory
regulatory regulatory regulatory regulatory regulatory regulatory regulatory warning STOP warning warning warning warning
warning warning warning warning warning warning warning warning CARINA DOUANE warning warning POLICIJA POLICE warning CESTNINA PEAGE warning
warning warning warning warning warning warning warning warning warning warning 40 warning yield
yield yield yield yield yield yield yield yield yield yield yield yield
yield yield yield yield 23% yield 23% yield yield yield yield yield
70
- | 70

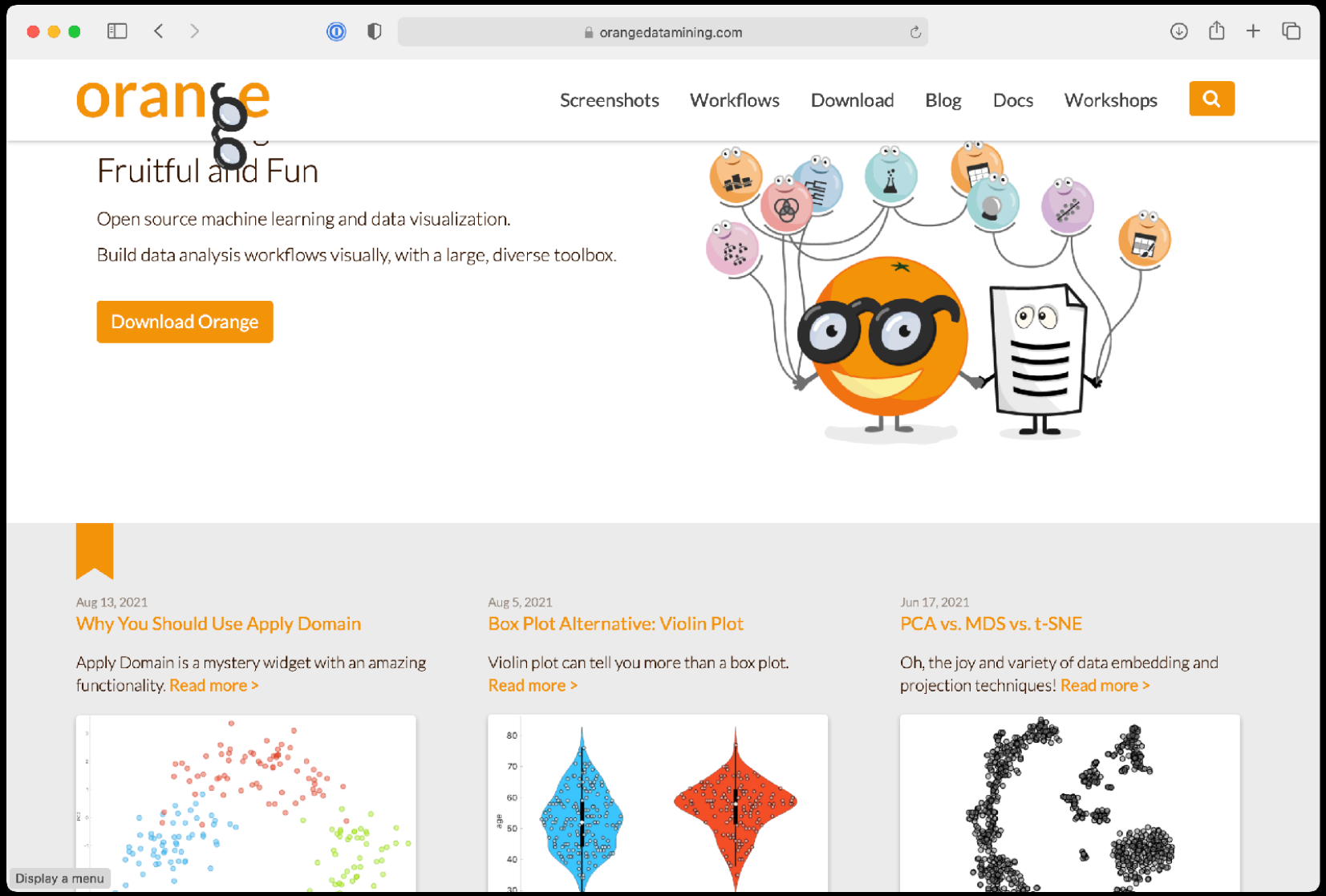

Untitled
Import Images
Image Viewer
Image Embedding
Silhouette Plot
Image Viewer (1)
Image Viewer (1)
STOP
warning
warning
warning
3
- | 3
Silhouette Plot
-0.1
0
0.1
0.2
0.3
regulatory (19)
warning (28)
yield (23)
70
3 | 70

Teaching lessons with a pinch of artificial intelligence


Not Secure — pumice.si
pumice
Domov
O nas
Novice
Aktivnosti
Kontakt
AKTIVNOSTI
Primeri aktivnosti, ki uporabljajo pristope umetne inteligence v povezavi z redno učno snovjo. Posamezna aktivnost vsebuje kratek opis vsebine, povezavo z učnim načrtom, podroben opis učne ure, podatke za delo z gradivi ter videe. Določene aktivnosti so primerne za osnovne, druge za srednje šole. Uporabite filter za prikaz določenega tipa aktivnosti.
Vse
Osnovna šola
Srednja šola
Določevalni ključi za skupine živali
Utrjevanje razlikovanja med skupinami živali
naravoslovje in tehnologija
Družbeno-ekonomske značilnosti držav
Opazovanje držav glede na družbeno-ekonomske značilnosti
geografija
Podnebni pasovi Evrope
Raziskovanje podnebnih pasov Evrope
geografija
Podobnost narečnih skupin
Ugotavljanje podobnosti slovenskih narečnih skupin
slovenščina


deltoid
romb
paralelogram
trapez

Orange Data Mining



An open and free toolbox for Data Science.

Orange Data Mining

1.000.000 lines of Python code

20 years of development

~500.000 users from both industry & academia

~500 universities use it for teaching data science

Ahmad Dahlan University, Indonesia; Aix-Marseille University, France; Amirkabir University of Technology, Iran; Andrés Bello Catholic University, Venezuela; Anil Neerukonda Institute of Technology & Sciences, India; Antenor Orrego Private University, Peru; BSE Institute Ltd., India; Babeș-Bolyai University, Romania; Bandung Institute of Technology, Indonesia; Bandırma Onyedi Eylül University, Turkey; Baylor College of Medicine, USA; Birla Institute of Technology and Science, India; Bocconi University, Italy; Bombay Stock Exchange Institute, India; Budi Luhur University, Indonesia; California Polytechnic State University, USA; Carleton University, Canada; Center for Applied Mathemathics, Mexico; Center of Higher Education of Brasilia, Brazil; Central Washington University, USA; Cestar College of Business, Health and Technology; Charles University, Faculty of Science; Chiang Mai University, Thailand; Complutense University of Madrid, Spain; DNACapitals, Singapore; Daegu Software High School, South Korea; Darmstadt University of Applied Sciences, Germany; Data Science Dojo, USA; Delft University of Technology, Netherlands; Des Moines Area Community College, USA; **Dian Nuswantoro University, Indonesia**; Duta Bangsa University, Indonesia; Ecuador Technological University, Ecuador; Eskişehir Technical University, Turkey; Estio Training, UK; European Academy of Neurology, Austria; Faculty of Sciences of the University of Lisbon, Portugal; Federal Institute of Bahia, Brazil; Federal Institute of Education, Science and Technology of Tocantins; Federal Institute of São Paulo, Brazil; Federal University of Goiás, Brazil; Federal University of Pelotas, Brazil; Federal University of Rio Grande, Brazil; **Federal University of Rio Grande do Norte, Brazil**; Federal University of Santa Maria, Brazil; Florida State University, USA; Francisco José de Caldas District University, Colombia; Giresun University, Turkey; Gunadarma University, Indonesia; Guru Gobind Singh Indraprastha University, India; Hacettepe University, Turkey; Hankuk University of Foreign Studies, South Korea; Harrisburg University of Science & Technology, USA; Holon Institute of Technology, Israel; I.E.S. Juan Carlos I, Spain; ICFAI Business School, India; ICFAI Business School Hyderabad, India; IPB University, Indonesia; ISLA Santarém, Portugal; ITB STIKOM Bali, Indonesia; ITC Infotech, India; ITESO, Universidad Jesuita de Guadalajara; ITM Business School, India; IULM University - Milan, Italy; Indian Institute of Management, India; Indian Institute of Management Sambalpur, India; Indian Statistical Institute, India; Informatics & Business Institute Darmajaya, Indonesia; Institut catholique d'arts et métiers, France; Institute of Technical Education and Research, India; Instituto Potosino de Investigación Científica y Tecnológica, Mexico; Instituto Superior de Engenharia de Lisboa, Portugal; Instituto Tecnológico Superior de Xalapa, Mexico; International Trademark Association, USA; JK Faculty, Brazil; Jakarta State Polytechnic, Indonesia; KAIST, South Korea; Kielce University of Technology, Poland; King Mongkut's Institute of Technology Ladkrabang, Thailand; Laval University, Canada; Linnaeus University, Sweden; Liverpool John Moores University, UK; **Lodz University of Technology, Poland**; Lviv Polytechnic National University, Ukraine; MGMU Institute of Biosciences & Technology, India; Mahidol University, Thailand; Mauricio de Nassau Faculty, Brazil; Memorial University of Newfoundland, Canada; Mercu Buana University, Indonesia; Mexican Institute of Knowledge Management, Mexico; Mexican Institute of Social Security, Mexico; Mittelhessen University of Applied Sciences, Germany; National Central University, Taiwan; National Chung Hsing University, Taiwan; National Conservatory of Arts and Crafts, France; National Institute of Technology Kurukshetra, India; National School of Computer Sciences, Tunisia; National Service for Industrial Training, Brazil; National University, USA; National University of General San Martín, Argentina; New Bulgarian University, Bulgaria; **Nigerian Defence Academy, Nigeria**; North American University, USA; Northern Alberta Institute of Technology, Canada; Ohio University, USA; Pablo de Olavide University, Spain; Padjadjaran University, Indonesia; Palacký University Olomouc, Czechia; Panamerican University, Mexico; Panteion University of Social and Political Sciences, Greece; Peking University, China; Pennsylvania State University, USA; Pirogov Russian National Research Medical University, Russia; Plovdiv University "Paisii Hilendarski", Bolgaria; Politecnica Salesiana University, Ecuador; Polytechnic Institute of Coimbra, Portugal; Polytechnic University of Yucatan, Mexico; Pontifical Catholic University of Peru, Peru; Pontifical Catholic University of Rio de Janeiro, Brazil; Poznań University of Economics and Business, Poland; Prague University of Economics and Business, Czech Republic; Praxis Business School, India; Professional Institute Santo Tomas, Chile; RWTH Aachen University, Germany; Republic Polytechnic, Singapore; Research Institute for Development, France; Rheinische University of Applied Science, Germany; Riga Technical University, Latvia; Riphah International University, Pakistan; Rochester Institute of Technology, USA; Sabanci University, Turkey; Sabancı University, Turkey; Sakarya University, Turkey; Santo Tomas, Spain; School of Information Management and Computer IKMI, Indonesia; School of Technology and Management of Oliveira do Hospital, Portugal; Sepuluh Nopember Institute of Technology, Indonesia; Shahroud University of Technology, Iran; Silesian University of Technology, Poland; Singapore Polytechnic, Singapore; Sol Solution, France; Soongsil University, South Korea; South Ural State University, Russia; St. Petersburg State University of Industrial Technologies and Design, Russia; Sungkyunkwan University, South Korea; Syracuse University School of Information Studies, USA; Södertörn University, Sweden; Tecnológico de Monterrey, Mexico; Telkom Institute of Technology, Indonesia; Telkom Institute of Technology Purwokerto, Indonesia; Texas State University, USA; **The American University (Nicaragua), Nicaragua**; The Free University of Berlin, Germany; The Hong Kong Polytechnic University, Hongkong; The Institute of Bioengineering of Catalonia, Spain; The United Nations University, The Netherlands; The University of Santa Cruz do Sul, Brazil; The University of Utah, USA; Tohoku University of Community Service and Science, Japan; Tokyo University of Science, Japan; Treptow-Köpenick University of Appplied Sciences, Germany; UNICAMP Universidade Estadual de Campinas, Brazil; Universidad Autónoma Latinoamericana, Colombia; Universidad EAFIT, Colombia; Universidad Internacional SEK, Ecuador; Universidad Norbert Wiener, Peru; Universidad Tecnológica de Pereira, Colombia; Universidade Estácio de Sá, Brazil; Universidade do Sul de Santa Catarina, Brazil; Universitas Gadjah Mada, Indonesia; Universitas Narotama, Indonesia; Universiti Utara Malaysia, Malaysia; University Putra Malaysia, Malaysia; University of Algarve, Portugal; University of Applied Sciences Mittelhessen, Germany; University of Belgrade, Serbia; University of Brasília, Brazil; University of Essex, UK; University of Guadalajara, Mexico; University of Guelph, Canada; **University of Health Sciences, Turkey**; University of Houston, USA; University of Indonesia, Indonesia; University of La Laguna, Spain; University of Ljubljana, Slovenia; University of Malaya, Malaysia; University of Milano-Bicocca, Italy; University of Monterrey, Mexico; University of Montreal, Canada; University of Nebraska Kearney, USA; University of Oviedo, Spain; University of Paris, France; University of Split, Croatia; University of Stirling, UK; University of Technology and Applied Sciences, Oman; University of Tübingen, Germany; University of the Basque Country, Basque Country; **University of the Republic, Uruguay**; Università di Foggia, Italy; Utah Valley University, USA; Weill Cornell Medicine, USA; Yogyakarta State University, Indonesia; Zwickau University of Applied Sciences, Germany …

Francesca Vitali, Ph.D.

Research Assistant Professor

Center for Biomedical Informatics & Biostatistics, The University of Arizona

"I teach Orange workshops monthly to a diverse audience, from undergrad students to expert researchers. Orange is very intuitive, and, by the end of the workshop, the participants are able to perform complex data visualization and basic machine learning analyses. Most of our attendees have been able to incorporate this tool in their research practice."

Problems

Teacher training & involvement

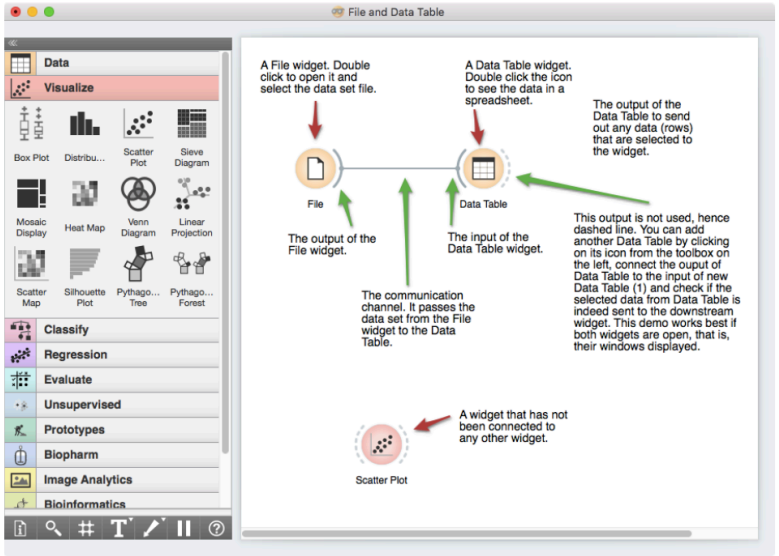
Scaling to larger community

Sustainability

Lecture Notes

Lesson 1: Workflows in Orange

Orange workflows consist of components that read, process and visualize data. We call them "widgets". Widgets are placed on a drawing board (the "canvas"). Widgets communicate by sending information along a communication channel. Output from one widget is used as input to another.

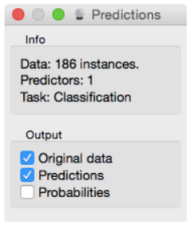


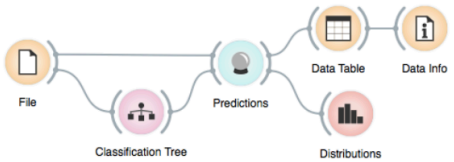
A simple workflow with two connected widgets and one widget without connections. The outputs of a widget appear on the right, while the inputs appear on the left.

We construct workflows by dragging widgets onto the canvas and connecting them by drawing a line from the transmitting widget to the receiving widget. The widget's outputs are on the right, and the inputs on the left. In the workflow above, the File widget sends data to the Data Table widget.

Lesson 6: Classification Accuracy

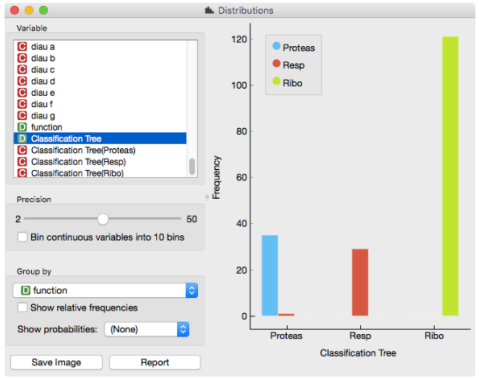
Now that we know what classification trees are, the next question is what is the quality of their predictions. For beginning, we need to define what we mean by quality. In classification, the simplest measure of quality is classification accuracy expressed as the proportion of data instances for which the classifier correctly guessed the value of the class. Let's see if we can estimate, or at least get a feeling for, classification accuracy with the widgets we already know.





Let us try this schema with the brown-selected data set. The Predictions widget outputs a data table augmented with a column that includes predictions. In the Data Table widget, we can sort the data by any of these two columns, and manually select data instances where the values of these two features are different (this would not work on big data). Roughly, visually estimating the accuracy of predictions is straightforward in the Distribution widget, if we set the features in view appropriately.

The measuring of accuracy is such an important concept that it would require its own widget. But wait a while, there's educational value in reusing the widgets we already know.

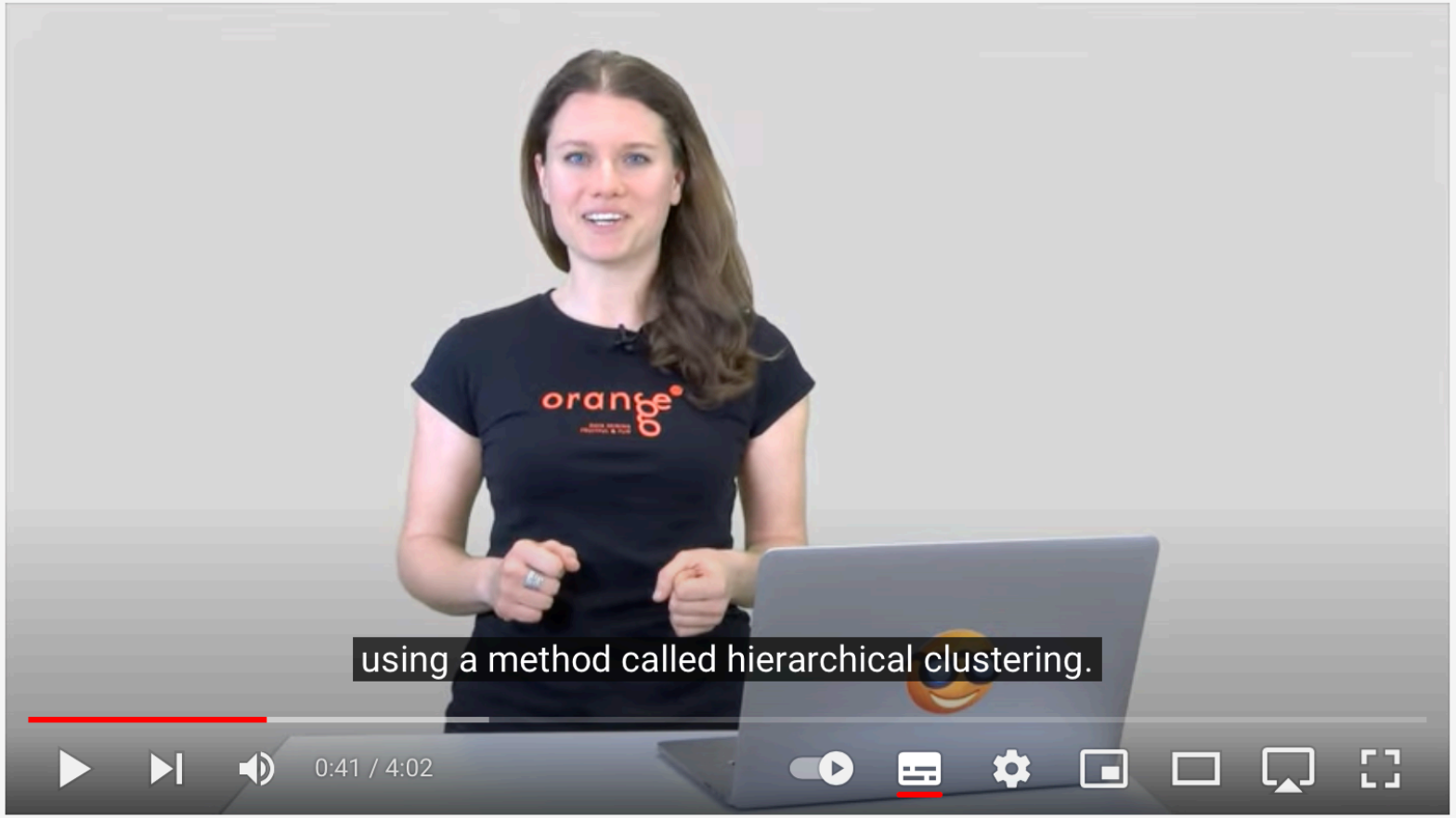


youtube.com

YouTube SI

Search

SIGN IN



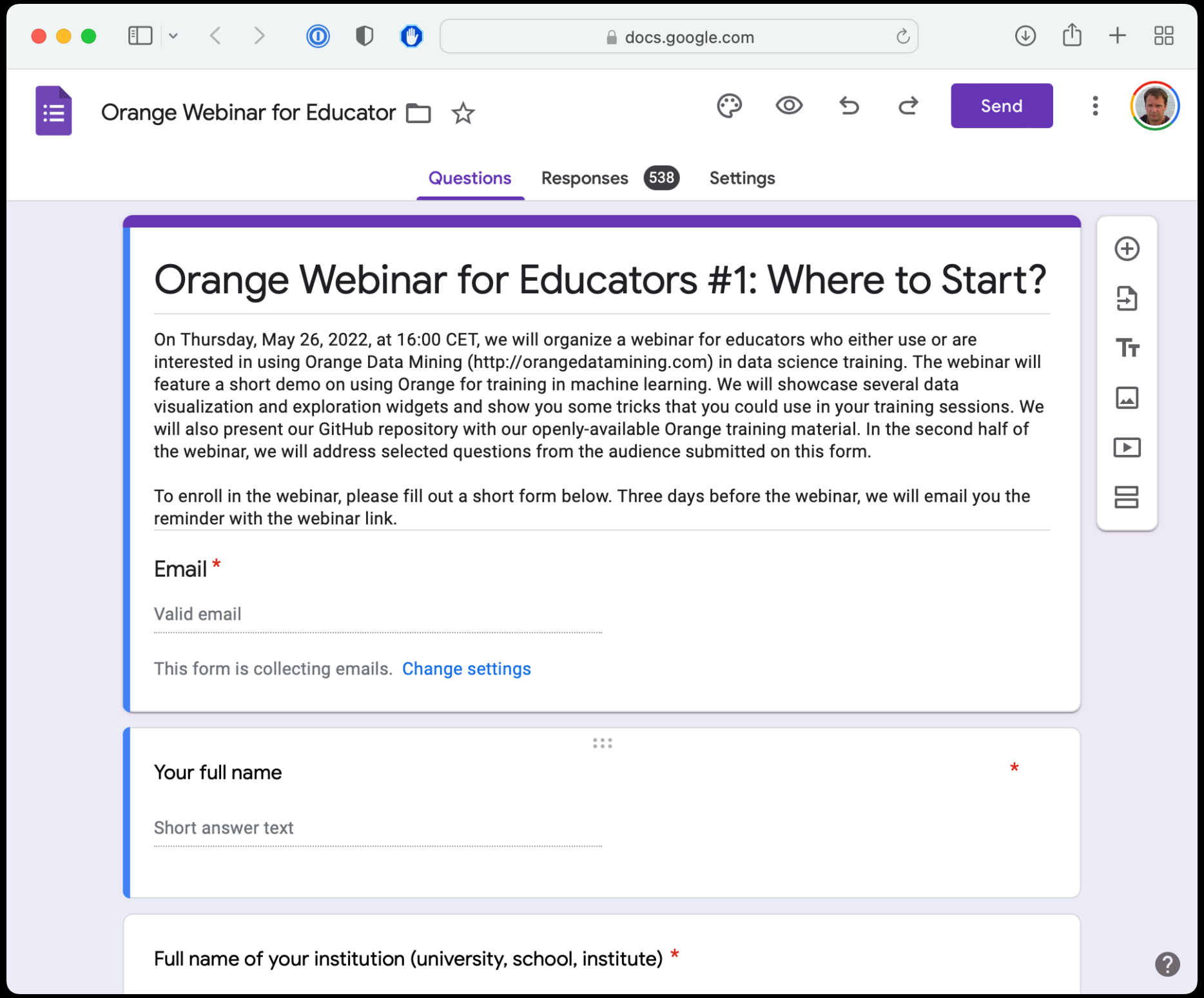
Getting Started With Orange 05: Hierarchical Clustering

148,846 views • 14 Jan 2016

670 DISLIKE SHARE SAVE ...

Orange Data Mining
25.6K subscribers

SUBSCRIBE


docs.google.com
Orange Webinar for Educator
Send
Questions
Responses 538
Settings
Orange Webinar for Educators #1: Where to Start?
On Thursday, May 26, 2022, at 16:00 CET, we will organize a webinar for educators who either use or are interested in using Orange Data Mining (http://orangedatamining.com) in data science training. The webinar will feature a short demo on using Orange for training in machine learning. We will showcase several data visualization and exploration widgets and show you some tricks that you could use in your training sessions. We will also present our GitHub repository with our openly-available Orange training material. In the second half of the webinar, we will address selected questions from the audience submitted on this form.
To enroll in the webinar, please fill out a short form below. Three days before the webinar, we will email you the reminder with the webinar link.
Email *
Valid email
This form is collecting emails. Change settings
Your full name *
Short answer text
Full name of your institution (university, school, institute) *

Pre-Service Teacher Orange Course Orientation Meeting

Inbox ×

Newell, Alana D. 5:58 PM (4 hours ago)

to Gad, me, Nancy, Maria

Hi Gadi and Blaž,

We're working on the details for the pre-service teacher program, and would like to set up a meeting with you to discuss next Friday's orientation. We tentatively propose that the 1-hour-long orientation would be split, with 30-40 minutes covering the details participants (6 pre-service teachers and 7 middle and high school teachers) will need to be prepared for the June 6-10 Orange course, and the other 20-30 minutes covering information only for the six pre-service teachers who will be in labs June 13-July 14.

Please let us know when you're available next week, and we can arrange a time to discuss the orientation session agenda.

On a related note, we've asked the pre-service teachers to provide a vaccine attestation by the end of the week, so we should be able to assign labs on Monday. We are assembling packets with general information about parking, badges, etc. for the participants that either we can email to them, or each lab can send out with their lab-specific information. If you have any questions or information that should be included in these pre-program packets, please let us know.

Thanks!
Alana

Conclusion

AI is tool. The concepts behind it are simple.

We should teach about its use,
not its inner workings.

Training of AI should be practical.

We need to train the teachers first.

And we need to ask them where to start.

Conclusion

Orange is a unique tool that, be sheer luck and completely rather unintentionally, was designed to perfectly fit the classrooms.

Winning ingredients: visual programming, interactive visualizations, cool interface.

We hope our luck persists and are looking for partners.

Wishes

Collaborations across EU

Use-cases and classroom elements

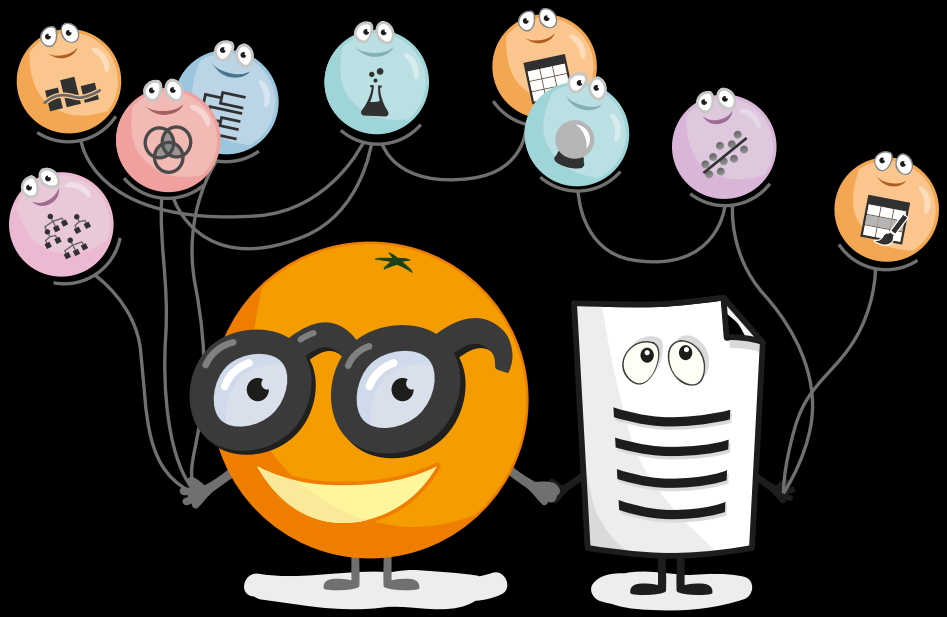
Large-scale evaluation of hands-on approaches

Thanks to…

Borut Čampelj, Secretary, Ministry for Education

Over 15 members of Bioinformatics Lab at the Faculty of Computer and Information Science, University of Ljubljana

Our current sponsors: Slovene Research Agency, Ministry for Public Administration, Chan Zuckerberg Initiative, and Google.org



https://orangedatamining.com

bzupan@gmail.com