



RIGA **CODING** SCHOOL

DATU ANALĪZES (ar PYTHON pamatiem)
apmācības

PAR MUMS

SKOLA

Viena no pirmajām
programmēšanas skolām Lietuvā
un Latvijā

FILIĀLES

Rīga, Vīļja, Klaipēda un
Kauņa

ABSOLVENTI

Vairāk nekā 700
absolvētu



KARJERAS CENTRS

Mēs mainam cilvēku pieredzi
un profesionālo karjeru

SADBĪBA

Vairāk nekā 70 sadarbības
partneru

PIEREDZE

Kopā 25 profesionāli treneru

KURSI



Intensīvs un koncentrēts
programmēšanas kurss



Apmācības sastāv no 20%
teorijas un 80% prakses



Grupas tiek organizētas,
atbilstoši zināšanu
līmenim



Iespēja atkārtot kursu
bezmaksas 1 gada laikā



Iespēja apmeklēt vieslekcijas
ar mūsu sadarbības
uzņēmumiem



Visas lekcijas tiek
ierakstītas un pieejamas
privātajā YouTube kanālā

RĪGAS PROGRAMMĒŠANAS SKOLA - Karjeras centrs

- Tikšanās ar IT tirgus ekspertiem;
- CV un karjeras semināri;
- Palīdzam atrast prakses vietas IT uzņēmumos;
- Studenti tiek vērtēti apmācību laikā;
- Iespēja izmantot skolas telpas ārpus apmācībām;
- Izsniedzam **Sertifikātu** par 65 akadēmisko stundu apmeklējumu, kā arī pasniedzēju **rekomendācijas**.

VALDIS



- Izglītība: Maģistra grāds datorzinātnēs
- Pieredze programmēšanā: 20+ gadi
- Specialitāte: grafu teorija sociālo tīklu analizēšanā
- Hobiji: prāta spēles, riteņbraukšana, šahs



Data Lake



Brief History of Data Analysis



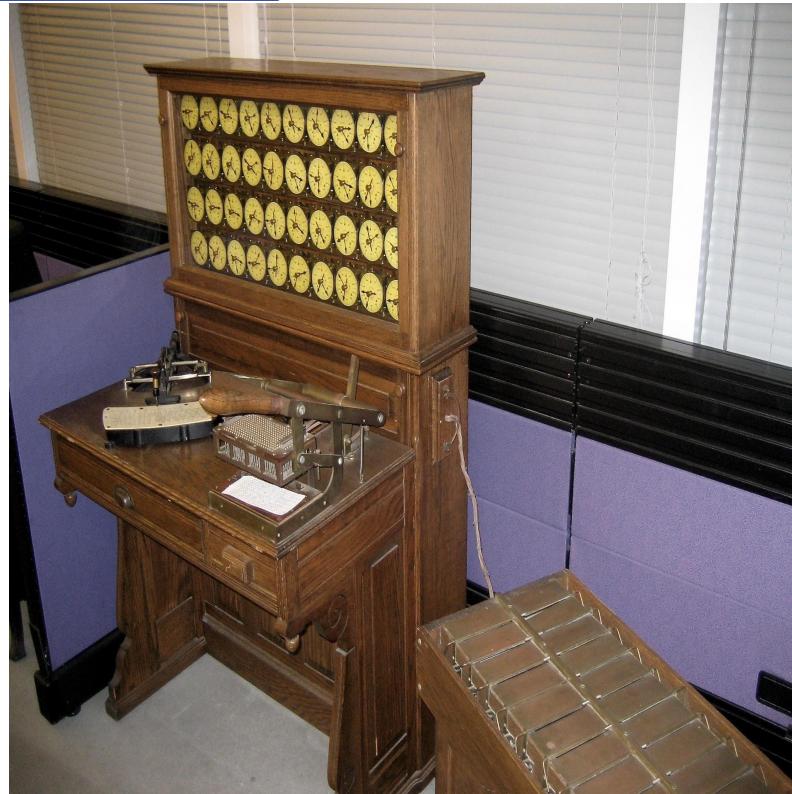
- ~ 18,000BC – Uganda, Ishango Bone
- ~ 2400BC – Babylon abacus, libraries
- 300BC – 48AD – Library of Alexandria
- ~ 100-200AD Antikythera Mechanism



Brief History of Data Analysis II



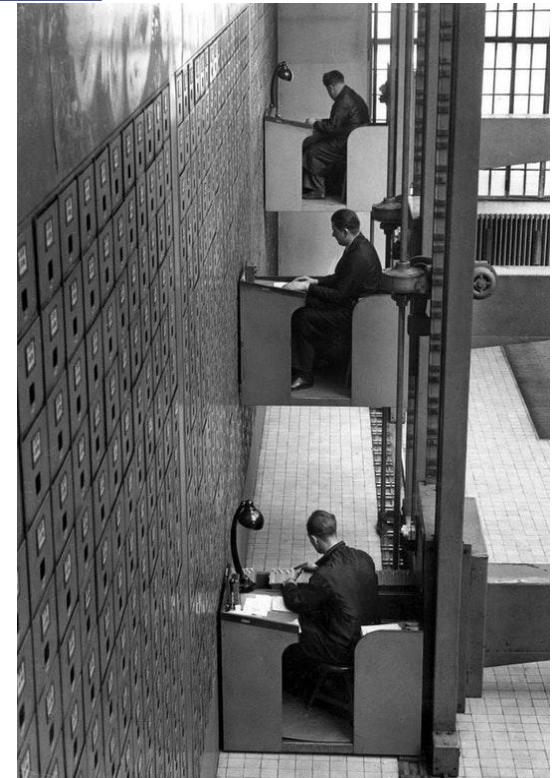
- 1663 – London, J.Graunt mortality analysis
- 1865 – banker H. Furnese business intelligence
- 1880-90 US Census Hollerith Machine -> IBM
- 1928 – F. Pfleumer magnetic tape invention



Brief History of Data Analysis III



- 1950s - Flat Files
- 1958 – IBM's Luhn defines Business Intelligence
- 1960s - CODASYL
- 1970s – Codd's relational DBs -> SQL
- 1980s – Data Warehouses / Marts
- 2000s – Big Data / noSQL DBs



BIG DATA LANDSCAPE 2017



Big Data

- Volume
- Velocity
- Variety
- Veracity



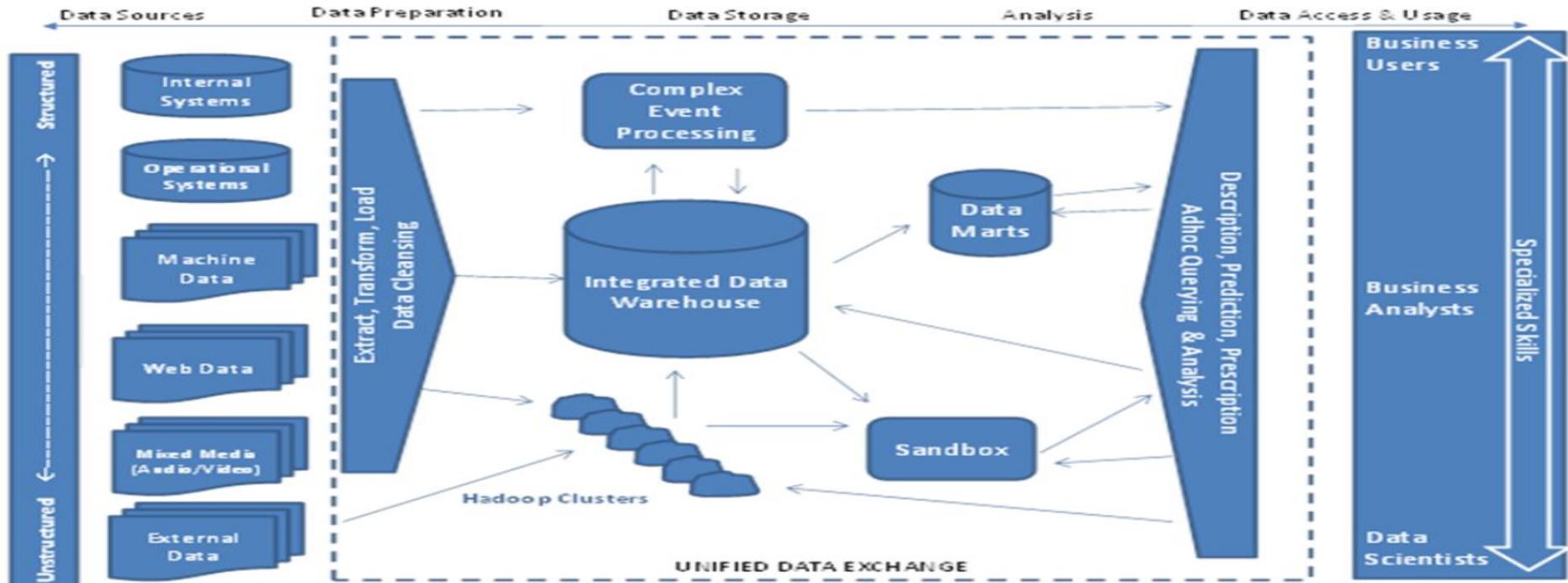
Buzzword bingo

- Big Data
- Data Mining (datizrace)
- Machine Learning – subset of AI
- Data Science – statistics
- Big Data or Pokemon
- <https://pixelastic.github.io/pokemonorbigdata/>



Random Forests	Neural Network	Reinforcement Learning	Supervised Learning	Cognitive Computing
Caffe	Support Vector Machine	Artificial Intelligence	Python	Cloud
Unstructured Data	Bot	DATA SCIENCE BUZZWORD BINGO (free square)	K-means	GPU
Spark	Data Wrangling	Deep Learning	Ensemble	Machine Learning
Keras	Tensorflow	Big Data	Algorithm	Feature Engineering

Full Analysis Framework



BIG DATA MANAGEMENT and GOVERNANCE: Strategic, Tactical and Operation Levels
(Metadata, Data quality, Access, Use, Ethics, Privacy, and Security Management processes)

Data Analysis Sandbox



Data Mining



- Anomalies
- Classification
- Clusters
- Dimension Reduction
- Regression
- Relationship finding
- Summarization / Visualization



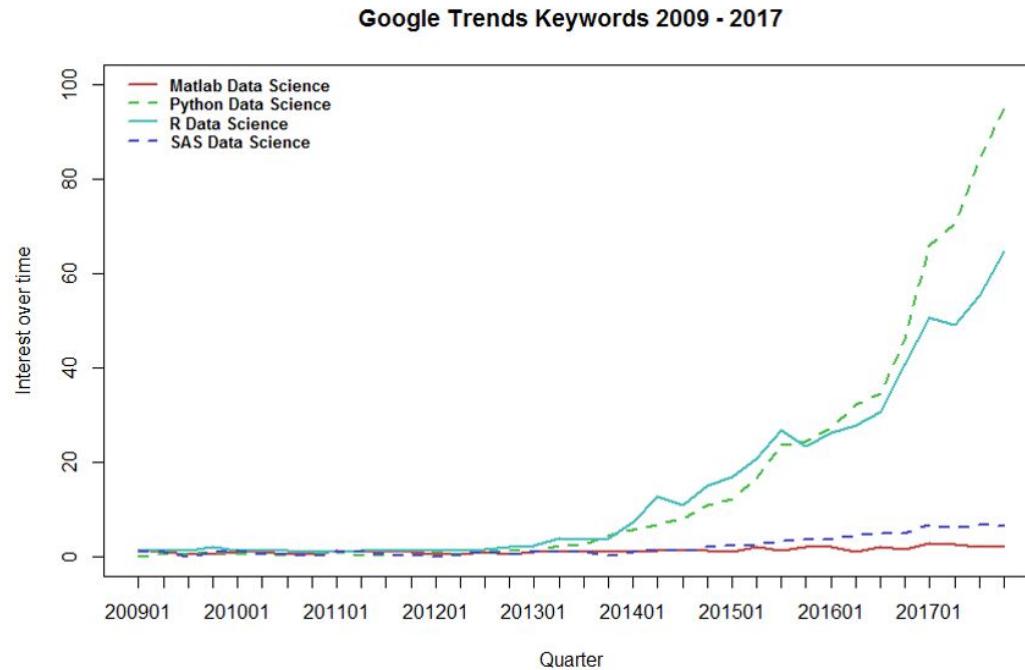
Building a Pipeline



- Data Security
- Cleanup
- Organising Database
- Analysis
- Visualization – Dashboard
- Emphasis on Analysis less on Infrastructure



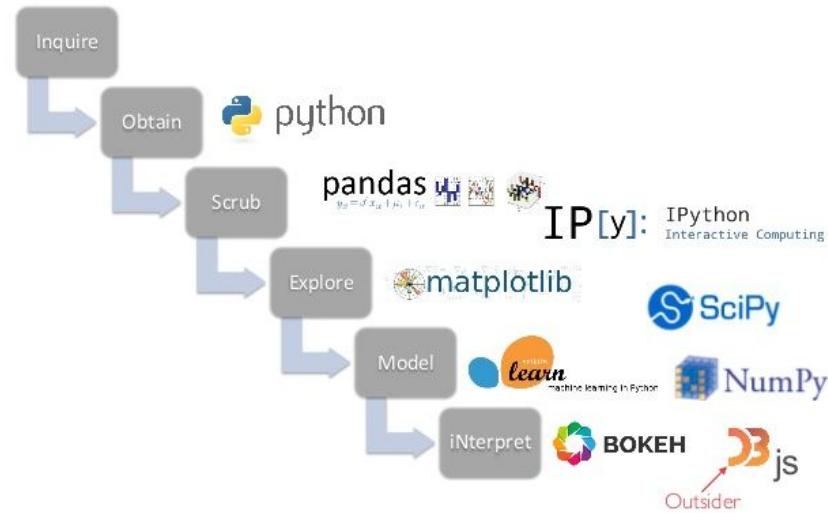
Why Python?



Python Ecosystem



PYTHON IS IOSEMN



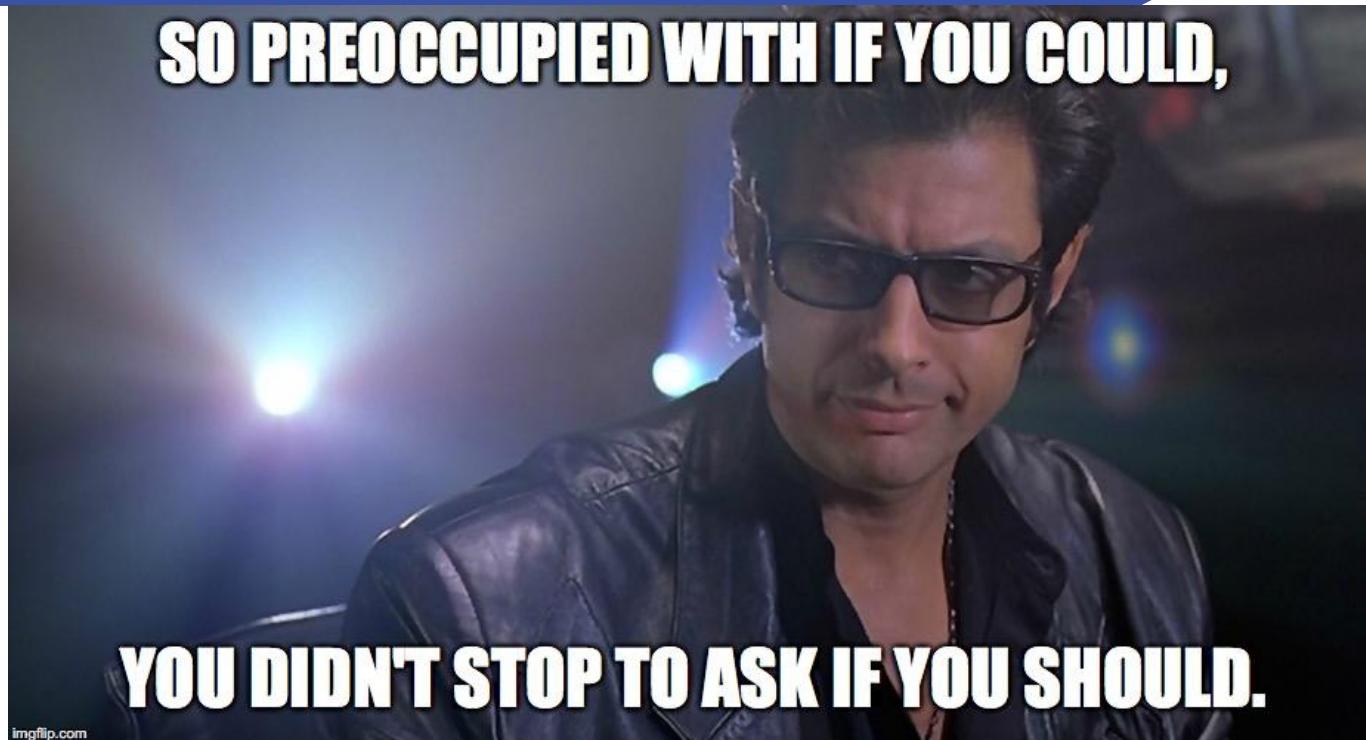
Avoiding Pitfalls



- Overfitting
- Data Dredging / p-hacking
- <https://xkcd.com/882/>



GDPR, ethics

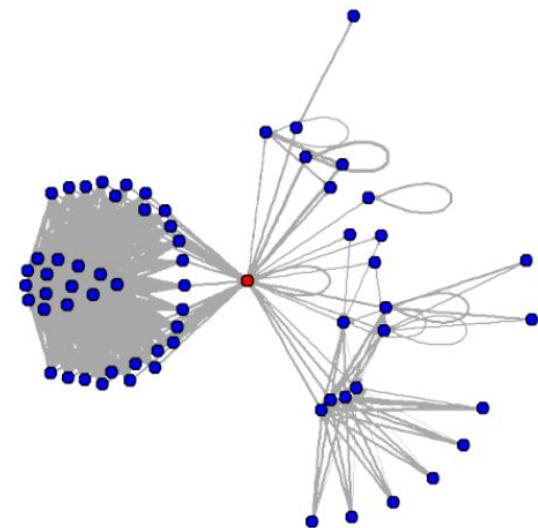


Planned Projects



- Recommendation System / Churn Prediction
- Web Comments Sentiment Analysis
- Network Analysis (possibly some blockchain)

- Visualizations with PowerBI(or Tableau)
- Dashboards with Dash/plotly



Requirements



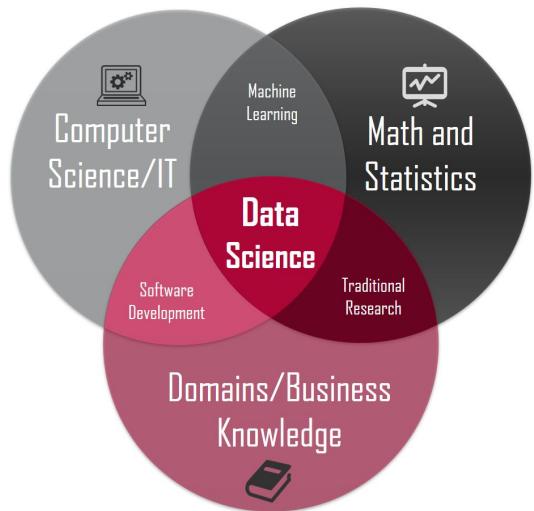
- Analytical / Logical Mind
- Helpful but NOT required knowledge:
- Python (will use Anaconda / Scipy)
- Comfortable in command line
- SQL
- Statistics
- Helpful: a computer with a minimum of 8GB RAM
- <https://www.anaconda.com/download/> (3.6+)



Goals



- Access structured/unstructured data
- Clean data
- Apply correct methods for analysis
- Visualize Results



Kādēļ Tu esi Šeit?



**Everybody in this country should
learn to program a computer...
because it teaches you how to think**

Steve Jobs, co-founder and CEO of Apple Inc. (1955 - 2011)





Jautājumi?

