

# CV & PORTFOLIO

MAJA JURCAN

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# EDUCATION

What I've learned



UBIQUM CODE ACADEMY

DATA ANALYTICS & MACHINE LEARNING

Learning how to apply methods of data analytics and data mining using R and Python. Creating advanced visualizations and using machine learning techniques on real life data.



UNIVERSITY OF RIJEKA  
FACULTY OF ENGINEERING

MASTER'S DEGREE

GRADUATE UNIERSTY STUDY OF COMPUTER ENGINEERING

Applying basic and specialist knowledge in designing, executing, exploiting and maintaining information and computer systems



UNIVERSITY OF RIJEKA  
FACULTY OF ENGINEERING

BACHELOR'S DEGREE

UNDERGRADUATE UNIVERSITY STUDY OF COMPUTER ENGINEERING

Applying specialist knowledge based on the scientific approach in the field of computing

# SKILLS

What I do



R / PYTHON



SQL / DBMS



DATA ANALYTICS /  
MACHINE LEARNING

# PROJECTS

What I've done



## WIFI FINGERPRINTING

Investigating the feasibility of using wifi fingerprinting to determine a person's location in a multi-building indoor space.

Using R packages to clean the large dataset, build and optimize models for locating and visualize person's location and movement through university campus.



## MARKET BASKET ANALYSIS

Determining associations between products with *apriori* algorithm based on recorded transaction data to build recommender system. Using different approaches to find frequent and obvious items sets as well as the ones which are not so obvious and intuitive on the first glance.

# PROJECTS

What I've done



## SUBMETERED ENERGY CONSUMPTION

Modeling patterns of energy usage by time of day and day of the year in a typical residence whose electrical system is monitored by multiple sub-meters.

Diving into data by detailed visualizations using *ggplot2* and *plotly* packages. Applying various models for predicting future energy consumption to determine feasibility of submeters.



## MOBILE PHONE SENTIMENT ANALYSIS

Using the Amazon Web Services (AWS) Elastic Map Reduce (EMR) platform to run a series of Hadoop streaming jobs and R to develop a predictive model that will determine the user sentiment towards mobile phone devices from the lexical content of web pages extracted from the Common Crawl repository of web pages.

# PROJECTS

What I've done



## CUSTOMER BUYING PATTERNS

Using data mining and machine learning techniques to investigate patterns in customer's sales data and provide insight into customer buying trends and preferences.

Using RapidMiner and Tableau to understand the relationship between customer demographics and purchasing behavior.

Machine learning packages were used to predict which potential new products will be the most profitable.



## WORD FREQUENCY

Using web scraping of Project Gutenberg repository and natural language processing techniques to find most frequent words in Moby Dick novel.

Using Python and Jupyter Notebook and packages like *request*, *BeautifulSoup* and *nltk* to build a pipeline that can be used to visualize the word frequency distributions of any novel that you can find on Project Gutenberg.

*Thank you for your attention!*