

Emir Demić

Research Psychologist

Research Psychologist with Passion for Data Analysis



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Belgrade, Serbia



emirdemic.github.io/Personal-Portfolio

EDUCATION

Research Psychology, MA

Faculty of Philosophy, University of Belgrade

10/2019 - Present

Psychology, BA

Faculty of Philosophy, University of Belgrade

10/2019 - Present

Average grade 9.64

Relevant Courses

- Statistics 1
- Psychometrics 1
- Advanced topics in statistics and psychometrics
- Methodology of psychological research
- Statistics 2
- Psychometrics 2
- Multivariate statistics
- Research methods and techniques in social psychology

WORK EXPERIENCE

Research Intern

Smart Plus Research

01/2020 - 02/2020

Belgrade, Serbia

Tasks

- Developing questionnaires for market research
- Conducting statistical analyses
- Report writing
- Presenting results (creating visualizations in ppt files)

Research Intern

Policy Research Group, University of Cambridge

07/2019 - 08/2019

Cambridge, United Kingdom

Tasks

- Conducting multinational research on prospect theory
 - Research published in Nature Human Behaviour
- Collaborating with international team of about 20 researchers
- Updating online tool CAPO for searching articles on behavioral interventions
- Communication with lead researcher and daily progress reporting
- Co-authoring a textbook chapter on behavioral interventions in education

Data Analyst

Upwork

04/2018 - Present

Belgrade, Serbia

Tasks

- Conducting various statistical analyses, visualizing data, interpreting results, and report writing (100% JSS)
- 30+ projects in fields of medicine, marketing, psychology, archeology, biology, etc.
- Tools used: SPSS, Python (pandas, numpy, plotly, sklearn), Tableau, PowerPoint, Excel, JASP

Principal Data Analyst

Junior Researcher Programme

07/2018 - 08/2019

Belgrade, Serbia

Tasks

- Conducting research on the influence of social media usage on self-esteem in a 7-people international team
- Discussion on research ideas and the best statistical analyses
- Providing monthly report on progress
- Research design presented at University of Cambridge and Universidad Francisco de Vitoria in Madrid

Research Assistant

Laboratory for Experimental Psychology

10/2016 - 06/2020

Belgrade, Serbia

Tasks

- Conducting research on human memory and perception
- Holding lectures on methodology and statistics to first-year students

Mentor

Petnica

04/2019 - Present

Valjevo, Serbia

Tasks

- Holding lectures on statistics and mentoring research projects

SKILLS

SPSS - advanced

Machine Learning - intermedaite

Python (pandas, numpy, plotly, scikitlearn) - intermediate

Tableau - intermediate

SQL - intermediate

Qualtrics - advanced

SoSci Survey - intermediate

ONLINE COURSES AND EDUCATION

International Univeristies

- Currently auditing Stanford's CS229 Machine Learning course taught by Andrew Ng
- Currently auditing Harvard's CS109 Data Science course
- Currently auditing MIT's 18.06SC Linear Algebra course

Coursera

- Machine Learning by Andrew Ng
- Machine Learning with Python by IBM
- Databases and SQL for Data Sciecn by IBM
- Mathematics for Machine Learning by Imperial College London

Other Resources

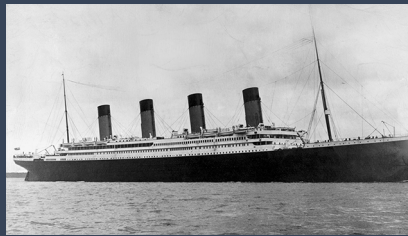
- Courses on Data Science by DataQuest, SuperDataScience, DataCamp, and EdX
- Courses on Databases by DataQuest, SuperDataScience, and DataCamp
- Textbooks such as An Introduction to Statistical Learning, Hands-On Machine Learning with Scikit-Learn and TensorFlow, SQL for Data Analysis, Data Science Handbook, etc.



Talk on Prospect Theory

Research and Implications

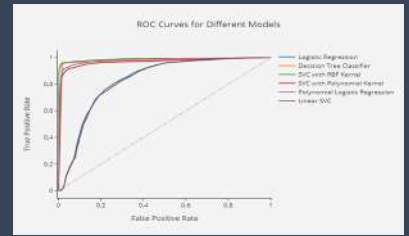
youtube.com/watch?v=thx7rTlzd0o&t=210s



Titanic - Predicting Passengers' Survival

In Progress

github.com/emirdemic/Titanic



Predicting Employee Turnover

Using ML techniques to predict employee churn

github.com/emirdemic/Predicting-Employee-Turnover

PUBLICATIONS AND ACHIEVEMENTS

- Ruggeri, K., Ali, S., Berge, M. L., Bertoldo, G., Bjørndal, L. D., Cortijos-Bernabeu, A., ..., Demić, E., ..., Folke, T. (2020). Replicating patterns of prospect theory for decision under risk. *Nature Human Behaviour*, 4, 622-633, doi: 10.1038/s41562-020-0886-x
- Behavioral Insights for Public Policy: Concepts and Cases (Edited by Kai Ruggeri) - Co-authored the chapter "Education" in the 2nd edition (in press, soon to be available at Routledge)
- Award for the best poster-presented research at XXV Empirical Research in Psychology conference held annually in Belgrade
- Grant - The Ministry of Education, Science and Technological Development
 - Received a 12-month grant for high achieving students with high score on intelligence tests
- Grant - ManpowerGroup Serbia
 - Received a 12-month grant for top 20 students of all state universities in Serbia

CONFERENCES

XXV Empirical Studies in Psychology, Belgrade

- Presenting research "Phonological similarity effect in Serbian language: Testing retrieval cues hypothesis"

jConference - Cambridge

- Presenting the research protocol "Investigating the relationship of social media use, social comparison and self-esteem using objective measures of social media usage"

jMeeting - Madrid

- Presenting the research protocol "The iGeneration: Investigating the relationship between social media use and emotion recognition in adolescents"

LANGUAGES

Serbian - native

English - full professional proficiency

A LITTLE BIT ABOUT MYSELF

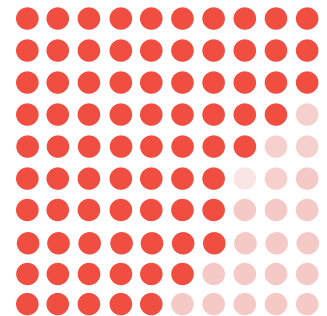
- Reaaaaaally passionate about learning new concepts, especially statistical analyses and algorithms (also a quick learner, so that is a plus)
- Gladly spend hours or days on learning new concepts, solving a problem, or just refreshing my knowledge
- Will ask questions if I'm not getting something right
- Will google and research it if I'm really not getting it
- Will brag about knowing how to play piano even though I haven't played it for the past 6 years
- Passionate about boardgames and video games (would gladly discuss The Last of Us until the end of time)
- Will continue reading a bad book (damn you, sunk-cost fallacy)
- In love with camping, even though I've never really done it (so, more like in love with the *idea* of camping)

ALGORITHMS

```
SELECT algorithms, self_assessed_knowledge AS knowledge
FROM my_brain
WHERE knowledge > 3
ORDER BY level_of_knowledge DESC;
```

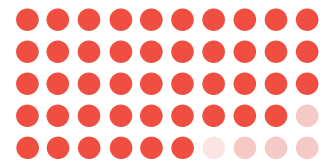
Classification Algorithms

K-Nearest Neighbours
Logistic Regression
Softmax Regression
Decision Trees
Perceptron
Linear Discriminant Analysis
Naïve Bayes
Gaussian Discriminant Analysis
Support Vector Machines
Multinomial Event Model



Regression Algorithms

K-Nearest Neighbours
Linear Regression
Polynomial Regression
Decision Trees
Locally Weighted Regression



Unsupervised Learning

Clustering
Principal Component Analysis
Factor Analysis



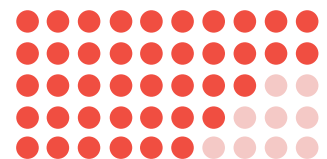
Ensemble Learning

Random Forests
Bagging
Gradient Boosting
Adaptive Boosting



Regularizations and Optimization

Ridge Regularization
Lasso Regularization
Elastic Net Regularization
Gradient Descent
Newton-Raphson Method



Other Analyses and Tests

(M)ANOVA
T-Tests
Non-Parametric Tests
Canonical Correlational Analysis



Bonus Joke

Candidate: "... and I've been in Yale for 3 years."

HR: "Wow, Yale, that's impressive! You're hired!"

Candidate: "Thanks, I really need this job."