# pyCHEDELICS PRO

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# INTRODUCTION

## PROBLEM

**THESIS**

People have **different vulnerabilities to drugs** based on their **character**

## SOLUTION

**pyCHEDELICS PRO APP**

helps you **learn about yourself and drugs, to prevent you** from harm

## MARKET

**TARGET GROUP**

**- KMDD e.V.** (Keine Macht den Drogen)**,**
**- BZgA** (Bundeszentrale für ges. Aufklärung)**, ...**

# INTRODUCTION

## pyCHEDELICS PRO

is an **learn & prevention App**

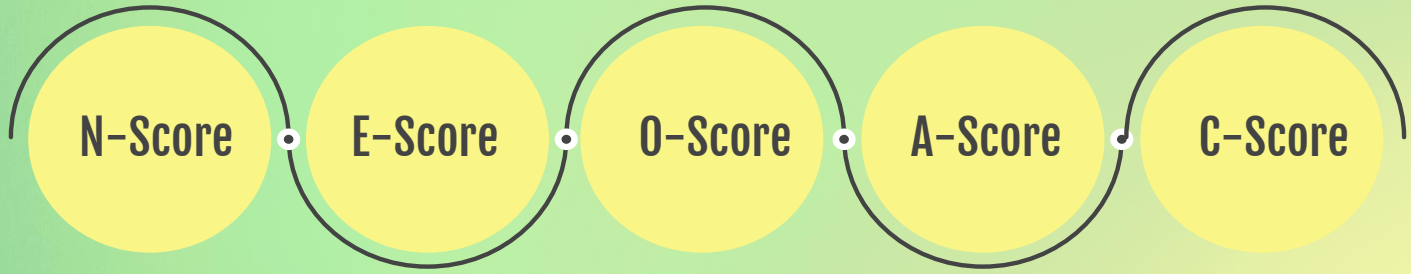
based on a **psychological dataset**

using NEO-FFI-R, BIS-11, ImpSS
**standardized questions for personality evaluation**

**predicts your vulnerability to Soft, Medium, and Hard drugs**

**links** to learning material about drugs and prevention

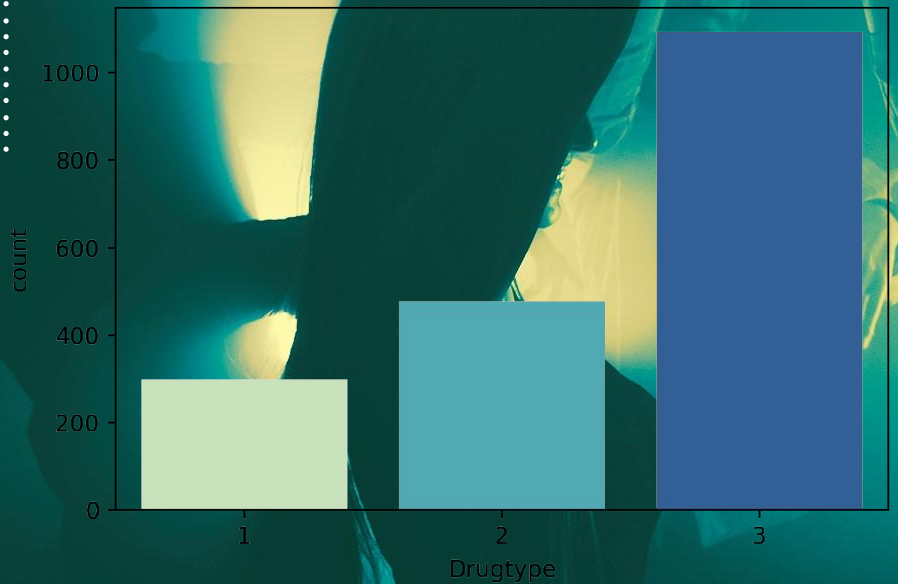
# PERSONALITY ANALYSIS



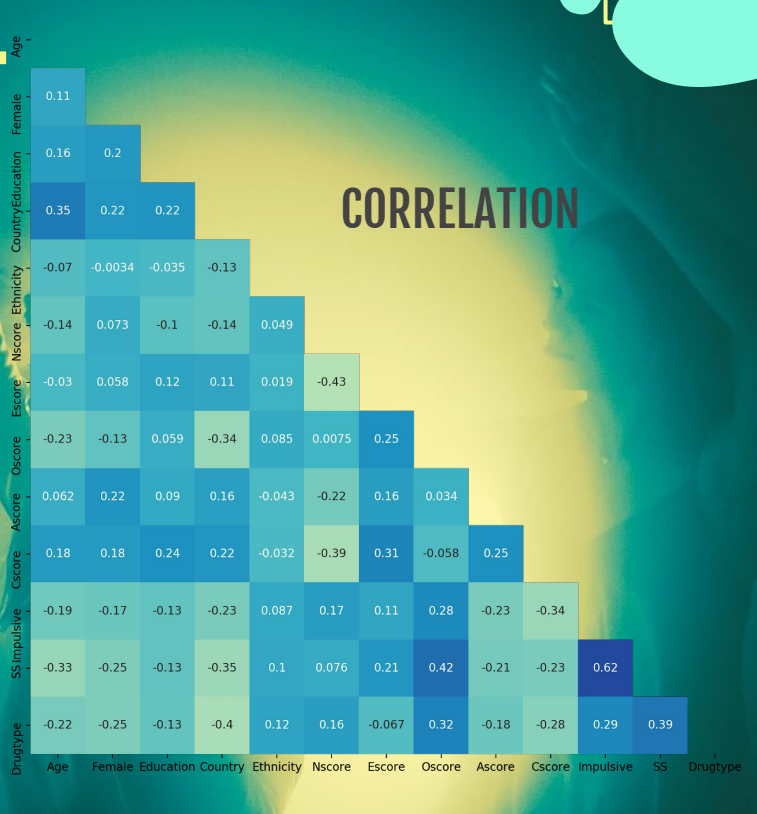

| Neuroticism | Extraversion | Openness to experience | Agreeableness | Conscientiousness |
|---|---|---|---|---|
| sensitive/nervous vs. secure/confident | outgoing/energetic vs. solitary/reserved | inventive/curious vs. consistent/cautious | friendly/compassionate vs. challenging/detached | efficient/organized vs. easy-going/careless |

# PREDICTIVE MODEL

## CATEGORISATION




## CORRELATION



# PREDICTIVE MODEL

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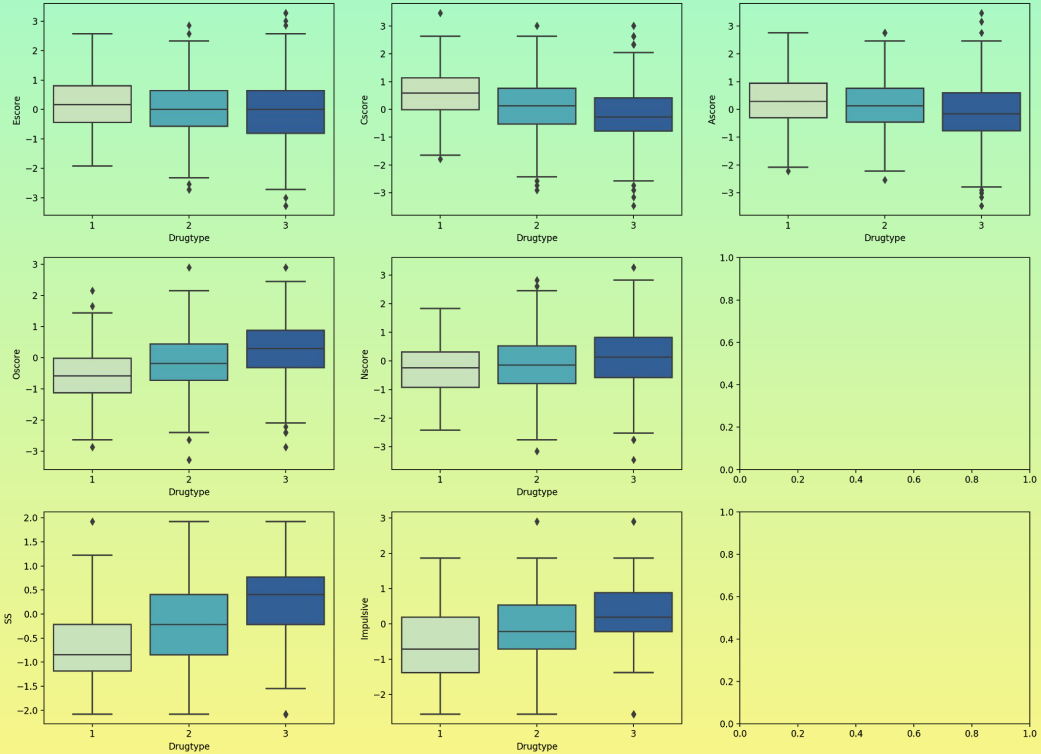


# PRODUCT OVERVIEW


## START

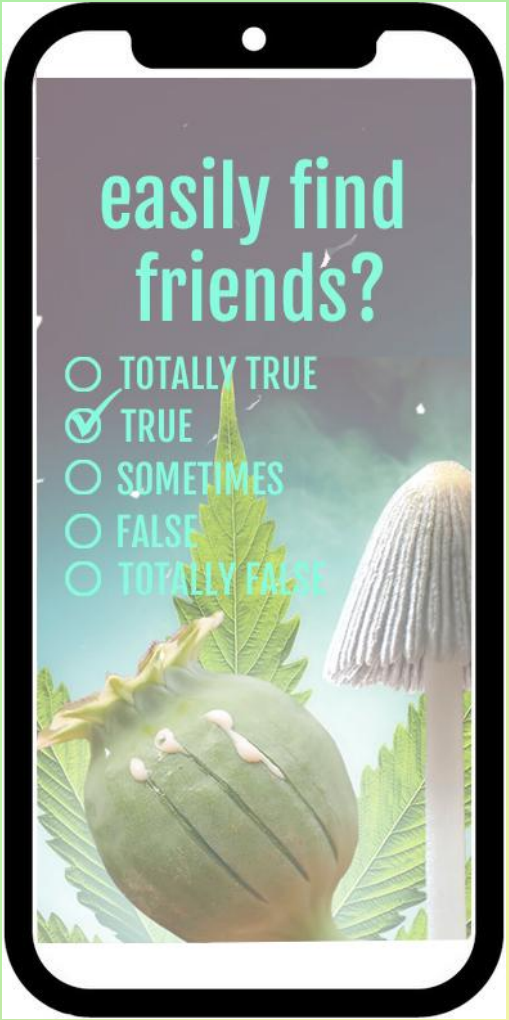
- iOS
- ANDROID

# PRODUCT OVERVIEW


## DEMOGRAPHIC

- AGE
- GENDER
- EDUCATION
- COUNTRY
- ETHNICITY

# PRODUCT OVERVIEW




## PERSONALITY

- NEUROTICISM
- EXTRAVERSION
- OPENNESS
- AGREEABLENESS
- CONSCIENTIOSNESS
- IMPULSIVNESS
- SENSATION SEEING

# PRODUCT OVERVIEW


## SCORES

- NSCORE
- ESCORE
- OSCORE
- ASCORE
- CSCORE
- IMP
- SS

# PRODUCT OVERVIEW


## RISK

- HARD DRUGS
- MEDIUM DRUGS
- SOFT DRUGS

# PRODUCT OVERVIEW


## LINKS

- DRUG DICTIONARY
- https://www.bzga.de
- https://www.kmdd.de

# CONCLUSION

- **Analysis** of a **psychological dataset** of personality traits and drug use

- **Engineering of categories** for **Soft, Medium and Hard Drugs**

- **Correlation** of **personality, demographic** and **drug use** data to built **classification model**

- **Optimization on weighted recall**

- **pyCHEDELICS App** to **predict vulnerability** to **drugs for prevention**

- even if model shows **mediocre accuracy predicting to much potential hard drug** users this **fits intentions** of pyCHEDELICS App as **used for prevention**

# FUTURE WORK

## New Data

- Conducting new surveys to extend data basis

## Reducing Complexity

- Reduction of target variable to a binary problem

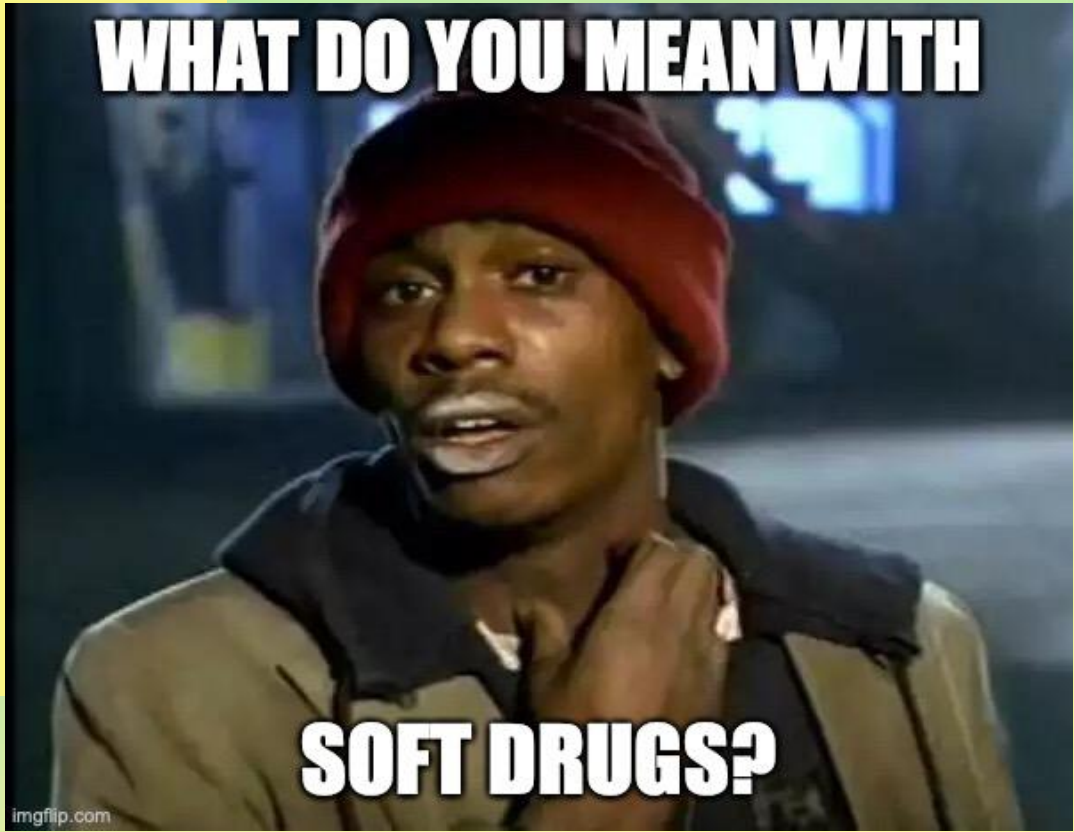
- Splitting data in regular vs. one-time drug-user (addict vs. curious)

## Model Improvement

- Improve fine tuning to enhance model performance

# THANK YOU

**Does anyone have any questions?**



# RESOURCES

## LINKS

- https://archive.ics.uci.edu/ml/datasets/Drug+consumption+%28quantified%29
- https://github.com/ma-re/EDA_Personality_Drug_Risk
- https://github.com/Patrick-Neubert/Neuer_Fisch/blob/master/EDA_on_Drugs_final.ipynb