AHNJILI ZHUPARRIS, PHD

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CAREER SUMMARY

I am an AI engineer, PhD candidate specializing in clinical data science, and science communicator. My work in machine learning is centered on harnessing AI, particularly generative AI, for advanced facial detection, recognition, analysis, and manipulation. My doctoral research is dedicated to pioneering clinical biomarkers for at-risk groups, such as children and individuals with unipolar depression. The scope of my analysis encompasses diverse data types, including textual, auditory, vocal, locational, smartphone usage patterns, and time series data. I am also deeply committed to science communication and artistic projects that critically examine and illuminate the ethical implications and biases inherent in AI technologies.

SKILLS & QUALIFICATIONS

Programming Languages: Python, R, Pyspark, SQL, Javascript
Analytics: Machine Learning (using PyTorch, TensorFlow, and Sklearn), Computer Vision, Data Mining, Voice Analysis and Voice Synthesis, Natural Language Processing
Cloud Platforms: Azure, Google Cloud Platform (GCP), Heroku, Amazon Web Services (AWS)
Languages: English (Native Language), Mandarin (B1), Dutch (B1)
Website: www.artificialnouveau.com
Git: https://github.com/artificialnouveau

WORK EXPERIENCE

REALFACEVALUE **September 2023 – Ongoing**
Machine Learning Engineer

- Prototyping and Evaluating Models for Trait Estimation: Involved in the initial creation and thorough assessment of models aimed at estimating various traits.
- Developing Methods for Face Editing Using Generative Models: Working on new techniques for editing facial features in images using generative models.
- Performing Ad-Hoc Analysis and Clear Reporting: Conducting targeted analyses as needed and presenting the findings in an understandable and concise manner.
- Image Pre and Post-Processing: Utilizing image processing techniques such as masking, morphology, alignment, warping, and composition to prepare and enhance images.

CENTRE FOR HUMAN DRUG RESEARCH **September 2018 – September 2023**
Lead Data Scientist

- Conducted research focused on disease classification, disease severity estimation, and treatment effects detection utilizing smartphone, wearable, and electronic Patient Reported Outcomes (ePro) data.
- Performed in-depth literature reviews to gather relevant insights and stay up-to-date with the latest advancements in the field.
- Developed Statistical Analysis Protocols to guide the research methodology and analysis procedures.
- Processed and analyzed a wide range of data types, including text, audio, voice, location, smartphone activity logs, and time series data.

ARTIFICIAL NOUVEAU **January 2018 – Ongoing**

Freelance Data Scientist and Science Communicator

- Presented talks and served as a panelist and juror in various machine learning and ethics events, contributing to discussions on the intersection of these fields.
- Created custom analytical and generative algorithms for creative voice cloning and generative image applications.
- Designed and delivered a series of workshops focusing on data mining, generative AI, computer vision, and machine learning, providing practical insights and hands-on learning opportunities to participants.

GLOBAL DRUG SURVEY **October 2017 – Ongoing**

Lead Data Scientist

- Responsible for maintaining quality reference data using SQL by performing operations such as cleaning, transformation and ensuring integrity in a relational environment.
- Designed interactive data visualizations for ongoing analyses, dashboards, reports in both Tableau and Javascript.
- Performed inferential statistics of the survey data consisting of 50,000 respondents annually.

EDUCATION

LEIDEN UNIVERSITY, NETHERLANDS **2020 - 2024**

Doctor of Philosophy (PhD) in Medicine

RADBOUD UNIVERSITY NIJMEGEN, NETHERLANDS **2015 - 2017**

Research Master's Degree in Cognitive Neuroscience

UNIVERSITY OF EDINBURGH, UNITED KINGDOM **2011 - 2015**

Biomedical Bachelor's Degree with Honours in Neuroscience

AWARDS & FUNDINGS

MOZILLA CREATIVE MEDIA AWARDS **DECEMBER 2020**

Future Wake, an interactive website, received the Mozilla 2021 Creative Media Award. The project uses AI to analyze data relating to fatal police encounters in the U.S. and predict future incidents.

REFERENCES

PROF. DR. WESSEL KRAAIJ
Leiden Institute for Advanced Computer Science, Netherlands
w.kraaij@liacs.leidenuniv.nl

DR. ROBERT-JAN DOLL
Centre for Human Drug Research (CHDR), Netherlands
rjdoll@chdr.nl

PROF. DR. ADAM WINSTOCK
Global Drug Survey, UK
adam@globaldrugsurvey.com

JOURNAL PUBLICATIONS (click here for more publications)

Zhuparris, A., Maleki, G., van Londen, L. et al. A smartphone- and wearable-based biomarker for the estimation of unipolar depression severity. Nature Sci Rep 13, 18844 (2023). https://doi.org/10.1038/s41598-023-46075-2

Zhuparris et al., Machine Learning Techniques for Developing Remotely Monitored Central Nervous System Biomarkers Using Wearable Sensors: A Narrative Literature Review. Sensors 2023, 23, 5243. https://doi.org/10.3390/s23115243