Rémi de Fleurian
Data Scientist

Contact

remi.defleurian@gmail.com
646-217-9029
New York, NY

Profiles

remidefleurian.com
remidefleurian.com/linkedin
remidefleurian.com/github
remidefleurian.com/scholar
remidefleurian.com/osf

Skills

- R
  - Wrangling: tidyverse, zoo
  - Analysis: tidymodels, lme4, boot
  - Visualization: ggplot2, leaflet
  - Scraping: httr, rvest
  - Publishing: R Markdown, Shiny
- Python
  - Wrangling: numpy, pandas
  - Modeling: sklearn, pomegranate
  - Publishing: Jupyter
- MATLAB
  - Research: MiningSuite, GooseLab
- SQL
  - Relational data manipulation
- Tools
  - Version control: Git
  - Typesetting: LaTeX
  - Power analysis: G*Power
- Analysis
  - Machine learning
  - Data modeling
  - Inferential statistics
  - Nonparametric statistics
  - Time-series analysis
  - Design of experiments

Publications

- 2021: de Fleurian & Pearce, The relationship between valence and chills in music: A corpus analysis. i-Perception
- 2020: de Fleurian & Pearce, Chills in music: A systematic review. Submitted to Psychological Bulletin
- 2019: de Fleurian et al., Reward prediction tells us less than expected about musical pleasure. PNAS
- 2017: de Fleurian et al., Information-theoretic measures predict the human judgment of rhythm complexity. Cognitive Science

Conferences

- 2019: SMPC at NYU
- 2019: SEMPRE at Cambridge
- 2018: DMRN at QMUL
- 2018: EiTIC at UPF
- 2015: ESCOM at RNCM

Education

PhD in Cognitive Science – 4.0 GPA — expected 2021
Queen Mary University of London, Department of Computer Science

- Conducted research on the statistical modeling of affective responses to music
  - Systematic review of 167 publications on chills in music
    Currently in third round of peer review with first-ranked psychology journal
  - Aggregation of dataset for computational analysis showing effects of valence on chills
    Spotify API data for 1k tracks paired with control tracks via Euclidean distance matching for PCA, mediation, and regression analyses conducted in R
  - Study of behavioral and physiological data showing effects of musical content on chills
    Longitudinal behavioral data collected with bespoke R Shiny questionnaire, paired with chills data collected with wearable device using Arduino and MATLAB, linked to Python UI for continuous reports of chills and analyzed with bootstrapping in R
  - Aggregation of dataset for predictive modeling of timing of chills from audio properties
    Extraction of 40m+ rows of acoustic and musical features for 2k chills with MATLAB for comparison of model performance between HMMs and SVMs using Python and permutation tests with R, resulting in first-ever predictive model of chills in music
- Led workshops for research staff and taught classes for graduate students
  - Workshops on statistics, tidyverse, ggplot2, remote computing, online experiments, etc.
  - Lectures on LaTeX and statistics with R for Research Methods module
  - Guest lecture on music and emotion for Music Cognition module
- Completed coursework focused on quantitative, programming, and research skills
  - Machine Learning, Applied Stats, Computational Stats, Inferential Stats, Data Analytics
  - Research Methods, Creative Coding, Neuroscience, Music Cognition

MSc in Music, Mind, and Brain – 4.0 GPA — 2013
Goldsmiths, University of London, Department of Psychology

- Conducted research for thesis on information-theoretic measures of rhythm complexity
  - Experiment showing that complexity measures predict performance on rhythm prediction
    Algorithmic design of rhythmic stimuli for rhythm prediction behavioral task, comparing prediction performance of complexity measures with mixed-effects logistic regression

BSc in Osteopathic Studies — 2012
British School of Osteopathy

Relevant experience

Data Science Fellow — part-time, Jan 2021 – Present
Alliance for Downtown New York — New York, NY

- Selected as 2021 Fellow to work on data-related tasks
  - Automation of yearly matching process between buildings databases for property tax calculation, increasing accuracy and eliminating need for two-month-long manual process
  - Extraction and harmonization of data from various public and private sources for new visualizations of pedestrian activity in Downtown Manhattan

Data Journalism Fellow — Jul 2019 – Sep 2019
The Guardian — London, UK

- Selected by Google for a data fellowship with the Guardian's Visuals and Data teams
  - Text mining and analysis for interactive story on Queen's speech
  - Background research and data visualization for various stories
  - Fast-paced analysis of key insights for live news

Senior Data Analyst — part-time, Apr 2019 – Mar 2020
House of Greenland — London, UK

- Handled need for data-driven insights and recurrent task automation
  - Integration of timesheet, capacity, and billing data
  - Design of project dashboard template to ensure accurate budget tracking
  - Automation of monthly reports for company-wide time allocation

Other experience

Senior Operations Coordinator – House of Greenland, UK — part-time, Oct 2016 – Mar 2019
Producer – House of Greenland, UK — Dec 2015 – Sep 2016
Educational Consultant – Project Education, UK — Oct 2014 – Nov 2015