Andrew M. Demetriou

Social Data Scientist | Ground-Truthing Specialist
designing, executing, and communicating
process and analysis results for intelligent systems

- **Ground-Truthing**: Designing, collecting, and analyzing data for AI system evaluation
- **Human-Centered Data**: Surveys, sensors, and smartphone app digital traces
- **Project Management**: Scoping, organizing, documenting, executing and quality control
- **Communication:** Translating processes and analysis results into visualizations

Skills: R (advanced), Python (Novice)
MixPanel & R Shiny (dashboards), Quarto (html from R), GitHub Pages,
cross-classified multilevel linear modelling, robust ranking aggregation, specification curve analysis

Selected Research Experience

Universal Music Group
- Onsite visit to highest priority strategic partner, collaborated on requirements, analyzed and reported results from a collaborative research project, and sparked further collaboration
- Led 4-week in-depth user study of app, tracking usage metrics, measuring KPIs, collecting qualitative reports for marketing content, and communicated findings to key stakeholders
- Built easy-to-navigate online wiki-knowledge base (dashboards and documentation) from R notebooks and GitHub Pages, giving entire team instant access to all analysis results

VIER
- Led documentation, evaluation design and data collection for a prototype LLM system
- Informed key client demo with performance insights of prototype
- Synthesized techniques from extensive LLM research to inform further process development

Spotify
- Co-designed and managed 3 user studies exploring subjective perceptions of music
- Translated open-ended and quantitative data into prescriptions for product development

PhD Candidate (ABD)
Delft University of Technology: Multimedia Computing, Intelligent Systems
- Pioneering an interdisciplinary approach to ground truthing by incorporating knowledge and practice from the social sciences
- Developing protocols for data collection, validation, and reliability analyses, and tackling high-variability problems like subjective, interdisciplinary ground-truth
- Coordinated, designed and executed data collection and quality assurance process

Selected Manuscripts

Demetriou, A. M., Kim, J., Manolios, S., & Liem, C. (2024). "Towards Estimating Personal Values in Song Lyrics." In *Proceedings of the 25th International Society for Music Information Retrieval Conference.* https://arxiv.org/abs/2408.12694.

Liem, C. C., & Demetriou, A. M. (2023, May). "Treat societally impactful scientific insights as open-source software artifacts". In *2023 IEEE/ACM 45th International Conference on Software Engineering: Software Engineering in Society (ICSE-SEIS)* https://ieeexplore.ieee.org/iel7/10173779/10173870/10173886.pdf

Liem, C.C.S., Langer, M., Demetriou, A.M., Hiemstra, A.M.F., Wicaksana, A.S., Born, M.P. & König, C.J. (2018). "Psychology Meets Machine Learning: Interdisciplinary Perspectives on Algorithmic Job Candidate Screening". In Escalante, J.H., et. Al (Eds.) *Explainable and interpretable Models in Computer Vision and Machine Learning*, pp. 197-253. Springer International Published in Springer Nature, Switzerland. https://link.springer.com/chapter/10.1007/978-3-319-98131-4_9