ALEXANDER WHITELOCK-WAINWRIGHT, PHD

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PERSONAL SUMMARY

I am a highly driven and motivated senior analyst with demonstrated experience in both handling large data volumes and providing actionable insights to senior stakeholders across an institution. I am versatile and adaptive to change as indicated by technical skills in a variety of languages, program usage, and experience with large amounts of data. My research and statistical background provides me with a highly critical and analytical outlook on analyses and by taking pride in the work that I do, I always strive for the highest quality output.

I believe that by combining a background in Psychology with advanced statistical knowledge and data handling I can offer unique data insights that not only demonstrate data-driven insights, but also inform future human-centred commercial and business decisions. I am independent in my problem-solving and strive to find the most effective solutions, but in doing so I am open minded to ideas and can successfully work with all teams.

TECHNICAL SKILLS

- **Statistical Learning:** Regression modelling, cluster analysis, network analysis, text mining, factor analysis
- **Questionnaire Development:** Able to undertake the steps necessary to develop, validate, and roll-out questionnaires
- **Creating Data Pipelines:** SQL to automate data processing and manipulation (using Redshift, Oracle, and PostgreSQL), created an R package to offer data manipulation tools for the University, and deployed an analytical model to support student retention
- **Data Visualisation:** PowerBi, Shiny apps (R)
- **Report Writing:** LaTeX
- **Computational:** Programming languages (R, Python, and Shell script)

EMPLOYMENT HISTORY

Deloitte
Senior Analyst   *January 2022*

Monash University
Teaching Associate in Educational Psychology   *April 2021 to December 2021*
- Supervised GDPA students to design and carry out a research project in Educational Psychology.
- Marked student research projects, including data analysis plans and literature reviews.

Monash University
Research Fellow - Applying data science to Educational Data   *January 2019 to December 2021*
- Led a project to create a dashboard that monitored student engagement across a variety of learning tools for the whole University. This involved the creation of a data pipeline through the writing of Python and SQL scripts, and the setting up of a PowerBI dashboard to visualise insights.
- Created a series of tools to automate reports.
- Developed an R package to support facilitate the extraction of data from the institutional databases.
- Analysed large volumes of data to identify key predictor variables in student outcomes and retention.
- Measured changes in the University approach to learning activity offering by analysing historical data.
- Critically evaluated a long-standing questionnaire in Educational research.
- Supervised PhD students on various projects such as the development of machine learning models to classify educational feedback types and forum post content.

University of Liverpool
Funded PhD Student in Learning Analytics   *November 2016 to January 2019*
- Led the development of a questionnaire used to measure stakeholder expectations of analytic services that has been used both in Europe and Latin America.
- Undertook advanced psychometric analysis of questionnaire data to establish
- Wrote various papers seeking to explore student behaviour within online setting using first-order markov models and factor analysis.

Itza Media, London
Research Intern   *2018*
- Developed an instrument to measure parent beliefs towards educational technology.
- Fed back findings obtained from the instrument to key stakeholders.
- Conducted a literature review of children's use of technology for education purposes.

University of Edinburgh
Learning Analytics Research Consultant   *2015-2019*
- Developed and validated a staff and student survey for European funded SHEILA (Supporting Higher Education to Integrate Learning Analytics) and LALA (Latin America Learning Analytics) projects.

- Collaborated as a team in arranging distributions and translations of the survey.
- Interacted with partners and various stakeholders to provide a survey that met the requirements of the project.
- Undertook an exploratory sequence analysis of trace data to assess the relationship between psychological variables and learning behaviour.

University of Liverpool

Monitor, Laureate 2015-2018
- Assess the quality of the modules for the online Psychology postgraduate course.
- Read student feedback for the module and fed back any issues to the director of studies.

University of Liverpool

Lecturer and Marker 2015-2018
- Lectured on the Applying Psychology to the Real World undergraduate module.
- Lectured on the Health and Ageing undergraduate module.
- Marker for both undergraduate and postgraduate courses for a variety of modules. Marked Academic posters, and poster presentations.

EDUCATION

- PhD, Psychology, University of Liverpool, 2019
- First Class with Honours BSc, Psychology, University of Liverpool, 2014

TEACHING AND MENTORING EXPERIENCE

- 2020 - Ran a survey methodology workshop for PhD students.
- 2020 - Ongoing supervision of PhD students
- 2018 - Gave a lecture on big data to undergraduate students.

CONFERENCE PRESENTATIONS AND PUBLICATIONS

Fincham, E., Whitelock-Wainwright, A., Kovanović, V., Joksimović, S., van Staalduinen, J.-P., & Gašević, D. (2019). Counting clicks is not enough: Validating a theorized model of engagement in learning analytics. *Proceedings of the 9th international conference on learning analytics & knowledge*, 501–510.

Hilliger, I., Ortiz-Rojas, M., Pesántez-Cabrera, P., Scheihing, E., Tsai, Y.-S., Muñoz-Merino, P. J., Broos, T., Whitelock-Wainwright, A., Gašević, D., & Pérez-Sanagustın, M. (2020). Towards learning analytics adoption: A mixed methods study of data-related practices and policies in latin american universities. *British Journal of Educational Technology*, *51*(4), 915–937.

Hilliger, I., Ortiz-Rojas, M., Pesántez-Cabrera, P., Scheihing, E., Tsai, Y.-S., Muñoz-Merino, P. J., Broos, T., Whitelock-Wainwright, A., & Pérez-Sanagustın, M. (2020). Identifying needs for learning analytics adoption in latin american universities: A mixed-methods approach. *The Internet and Higher Education*, *45*, 100726.

Jovanović, J., Gašević, D., Pardo, A., Dawson, S., & Whitelock-Wainwright, A. (2019). Introducing meaning to clicks: Towards traced-measures of self-efficacy and cognitive load. *Proceedings of the 9th International Conference on Learning Analytics & Knowledge*, 511–520.

Kollom, K., Tammets, K., Scheffel, M., Tsai, Y.-S., Jivet, I., Muñoz-Merino, P. J., Moreno-Marcos, P. M., Whitelock-Wainwright, A., Calleja, A. R., Gasevic, D., et al. (2021). A four-country cross-case analysis of academic staff expectations about learning analytics in higher education. *The Internet and Higher Education*, *49*, 100788.

Lim, L.-A., Gentili, S., Pardo, A., Kovanović, V., Whitelock-Wainwright, A., Gašević, D., & Dawson, S. (2019). What changes, and for whom? a study of the impact of learning analytics-based process feedback in a large course. *Learning and Instruction*, 101202.

Saint, J., Whitelock-Wainwright, A., Gašević, D., & Pardo, A. (2020). Trace-srl: A framework for analysis of microlevel processes of self-regulated learning from trace data. *IEEE Transactions on Learning Technologies*, *13*(4), 861–877.

Sha, L., Rakovic, M., Whitelock-Wainwright, A., Carroll, D., Yew, V. M., Gasevic, D., & Chen, G. (2021). Assessing algorithmic fairness in automatic classifiers of educational forum posts. *International Conference on Artificial Intelligence in Education*, 381–394.

Tsai, Y.-S., Gašević, D., Whitelock-Wainwright, A., Muñoz-Merino, P. J., Moreno-Marcos, P. M., Rubio Fernández, A., Delgado Kloos, C., Scheffel, M., Jivet, I., Drachsler, H., et al. (2018). Sheila: Supporting higher education to integrate learning analytics. *Recuperado de https://sheilaproject. eu/2018/11/30/sheilafinal-research-report*.

Tsai, Y.-S., Whitelock-Wainwright, A., & Gašević, D. (2020). The privacy paradox and its implications for learning analytics. *Proceedings of the tenth international conference on learning analytics & knowledge*, 230–239.

Whitelock-Wainwright, A. (2019). *What do students want? developing and validating a scale to measure student expectations of learning analytics* (Doctoral dissertation). The University of Liverpool (United Kingdom).

Whitelock-Wainwright, A., Gasevic, D., Wood, T., & Ryan, K. (2020). A re-evaluation of the approaches to learning questionnaire.

Whitelock-Wainwright, A., Gašević, D., Tejeiro, R., Tsai, Y.-S., & Bennett, K. (2019). The student expectations of learning analytics questionnaire. *Journal of Computer Assisted Learning*, *35*(5), 633–666.

Whitelock-Wainwright, A., Gašević, D., Tsai, Y.-S., Drachsler, H., Scheffel, M., Muñoz-Merino, P. J., Tammets, K., & Delgado Kloos, C. (2020). Assessing the validity of a learning analytics expectation instrument: A multinational study. *Journal of Computer Assisted Learning*, *36*(2), 209–240.

Whitelock-Wainwright, A., Laan, N., Wen, D., & Gašević, D. (2020). Exploring student information problem solving behaviour using fine-grained concept map and search tool data. *Computers & Education*, *145*, 103731.

Whitelock-Wainwright, A., Tsai, Y.-S., Drachsler, H., Scheffel, M., & Gašević, D. (2021). An exploratory latent class analysis of student expectations towards learning analytics services. *The Internet and Higher Education*, 100818.

Whitelock-Wainwright, A., Tsai, Y.-S., Lyons, K., Kaliff, S., Bryant, M., Ryan, K., & Gašević, D. (2020). Disciplinary differences in blended learning design: A network analytic study. *Proceedings of the Tenth International Conference on Learning Analytics & Knowledge*, 579–588.

Yan, L., Whitelock-Wainwright, A., Guan, Q., Wen, G., Gašević, D., & Chen, G. (2021). Students' experience of online learning during the covid-19 pandemic: A province-wide survey study. *British Journal of Educational Technology*.

OTHER SKILLS

Software   SPSS, Microsoft Word, Excel, and PowerPoint, Full Google Suite

References available upon request.