GRACE OLIVE LAWLEY

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EDUCATION

OREGON HEALTH & SCIENCE UNIVERSITY
Portland, OR

PhD, Computer Science & Engineering — Expected Dec 2023

- Dissertation Title: 'Computationally Characterizing Communicative Context and Content in Autistic Children'
- Relevant Coursework: Machine Learning, Artificial Intelligence, Analysis and Design of Algorithms, Natural Language Processing, Principles and Practice of Data Visualization, Analyzing Sequences, Research Ethics for CS & EE

LEWIS & CLARK COLLEGE
Portland, OR

BA, Mathematics — Sep 2014 - May 2017

- Relevant Coursework: Probability and Statistics I & II, Discrete Mathematics, Linear Algebra, Number Theory

WORK EXPERIENCE

OREGON HEALTH & SCIENCE UNIVERSITY
Portland, OR

Graduate Research Assistant — Sep 2017 - Present

- Participate in NIH funded research on Autism Spectrum Disorder, Fragile X Syndrome and Down Syndrome (Grant No. R01DC012033: Automated Measurement of Language Outcomes for Neurodevelopmental Disorders)

POSIT, PBC
Remote

Data Science Mentor — Aug 2022 – Present

- Mentor small groups of working professionals as they develop and hone their data science skills in either R or Python
- Active contributor to the improvement of course materials and coordinate with the development team as needed
- Participate in meetings with customer contacts as requested to ensure Academy engagements are productive and successful

POSIT, PBC
Remote

Data Science Educator — Dec 2022 – Jun 2023

- Worked with the Posit Academy Python team on translating and adapting course material from R into Python
- Assisted in the development of Python specific course material
- Collaborated with team members using Git/GitHub, Slack, and Jira

RSTUDIO, PBC
Remote

Summer Intern — Jun 2019 - Sep 2019

- Worked with Alison Hill to create an updated bookdown version of Jenny Bryan's STAT 545, a data science course originally taught at the University of British Columbia
- Assisted in curating over 40 chapters of content on a wide range of topics, from reading data into R to creating an R package
- Course materials are now available as an online textbook and is available for free for both self-guided learners and educators

RSTUDIO, PBC
San Francisco, CA

Workshop Teaching Assistant — Jan 2020

- 'Applied Machine Learning Workshop' at rstudio::conf(2020)
- Assisted in a two-day, 180-person workshop on applied machine learning in R where participants learned how to use the tidymodels package to build, tune, visualize, and assess various predictive models

RSTUDIO, PBC
Austin, TX

Workshop Teaching Assistant — Jan 2019

- 'What They Forgot to Teach You About R Workshop' at rstudio::conf(2019)
- Assisted in a two-day, hands-on workshop on project-orientated workflows, version control with Git & GitHub, debugging, personal R administration, and iterating with the purrr package

OREGON HEALTH & SCIENCE UNIVERSITY
Portland, OR

Graduate Teaching Assistant — Jun 2018 - Sep 2018

- 'Introduction to Biostatistics for the Basic Sciences' (CONJ 620)
- Assisted in a course on data wrangling, statistical analysis, data visualization, and communication of biomedical data using the programming language R for graduate students
- Held weekly office hours, graded homework projects, and provided feedback to students

OREGON HEALTH & SCIENCE UNIVERSITY   Portland, OR
Research Intern   Jan 2017 - Jun 2017 | Jun 2016 - Aug 2016
- Participated in Autism Spectrum Disorder research under the supervision of Jan van Santen, PhD
- Analyzed transcribed interviews with children with Autism Spectrum Disorder using R and developed an automated method to detect and quantify atypical word usage using natural language processing techniques

ADDITIONAL

Technical Skills: R, Python, Git/GitHub, Data Analysis, Data Visualization, Statistics, Statistical Modeling, Computational Linguistics, Natural Language Processing
Certifications & Training: RStudio Certified Instructor – Tidyverse (2019)
Awards: Promising Scholar Award, Oregon Health & Science University (2017); Miller Internship Award, Lewis & Clark College (2016)

PUBLICATIONS

JOURNAL ARTICLES
1. H. MacFarlane, A. C. Salem, S. Bedrick, J. K. Dolata, J. Wiedrick, **G. O. Lawley**, L. H. Finestack, S. T. Kover, A. J. Thurman, L. Abbeduto and E. Fombonne, 'Consistency and reliability of automated language measures across expressive language samples in autism', Autism Research, pp. 1–15, 2023. doi: 10.1002/aur.2897.
2. **G. O. Lawley**, S. Bedrick, H. MacFarlane, J. K. Dolata, A. C. Salem and E. J. Fombonne, '"Um" and "Uh" Usage Patterns in Children with Autism: Associations with Measures of Structural and Pragmatic Language Ability', Journal of Autism and Developmental Disorders, vol. 53, pp. 2986–2997, 8 2022. doi: 10.1007/s10803-022-05565-4.
3. A. C. Salem, H. MacFarlane, J. R. Adams, **G. O. Lawley**, J. K. Dolata, S. Bedrick and E. J. Fombonne, 'Evaluating atypical language in autism using automated language measures', Scientific Reports, vol. 11, no. 1, 2021. doi: 10.1038/s41598-021-90304-5.

CONFERENCE PROCEEDINGS
4. **G. O. Lawley**, P. A. Heeman and S. Bedrick, 'Computational Analysis of Backchannel Usage and Overlap Length in Autistic Children', in 24th Meeting of the Special Interest Group on Discourse and Dialogue (SIGDIAL), Workshop on Connecting Multiple Disciplines to AI Techniques in Interaction-centric Autism Research and Diagnosis (ICARD), Prague, Czechia, Sep. 2023.
5. **G. O. Lawley**, P. A. Heeman, J. K. Dolata, E. Fombonne and S. Bedrick, 'A Statistical Approach for Quantifying Group Difference in Topic Distributions Using Clinical Discourse Samples', in 24th Meeting of the Special Interest Group on Discourse and Dialogue (SIGDIAL), Prague, Czechia, Sep. 2023.
6. **G. O. Lawley**, S. Bedrick and E. Fombonne, 'Sex Differences in Pronoun and Maze Usage in the Language of Children with Autism Spectrum Disorder', in International Society for Autism Research Annual Meeting (INSAR), May 2022.
7. **G. O. Lawley**, S. Bedrick, J. K. Dolata and E. J. Fombonne, 'Investigation on Examiner "Um" and "Uh" Usage in ADOS-2 Sessions', in International Society for Autism Research Annual Meeting (INSAR), May 2021.
8. A. C. Salem, H. MacFarlane, J. Adams, **G. O. Lawley**, J. K. Dolata, S. Bedrick and E. J. Fombonne, 'Evaluating Atypical Language in Autism Using Automated Discourse Measures', in International Society for Autism Research Annual Meeting (INSAR), May 2021.
9. A. C. Salem, H. MacFarlane, J. K. Dolata, **G. O. Lawley** and E. J. Fombonne, 'Using MLU to Evaluate the Reliability of ADOS Transcription', in International Society for Autism Research Annual Meeting (INSAR), Jun. 2020.

BOOK CHAPTERS
10. H. MacFarlane, A. C. Salem, **G. O. Lawley**, A. P. Hill, K. Zuckerman and E. J. Fombonne, 'Epidemiology'. In: Textbook of Autism Spectrum Disorders, 2nd, E. Hollander, R. J. Hagerman and C. J. Ferretti, Eds. American Psychiatric Association Publishing, 2022, ch. 1, pp. 5–33.