

Laney Light

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Education

M.S., Music Technology, 05/2021

Georgia Institute of Technology, Atlanta, GA

- Research concentration: Computational and cognitive musicology
- Master's project: A web-based interactive tool to explore a repository of scores using visualizations
- Core course work: Digital signal processing, music perception and cognition, computational musicology, recording and mixing, and history of music technology
- Digital media focus: UI/UX design, expressive computing, and integrating music and multimedia

M.S., Mathematical Sciences, statistics concentration, 05/2007

Clemson University, Clemson, SC

B.A., Mathematical Sciences, fine arts minor, 12/2004

Skills

TECHNICAL TOOLS

- *Coding/data analysis*: Python, SAS, JMP, Javascript, Stata, SPSS, Matlab, HTML, CSS, SQL, Matlab, Excel
 - *Music-specific*: Humdrum, Music21, musicXML, MIDI
- *Recording/mixing/composition*: Reaper, Soundtrap, Pro Tools, Ableton, Finale, MuseScore
- *Multimedia/design*: Figma, Adobe Premiere, Animate, Photoshop

DATA ANALYSIS

- Statistical inference and modeling
 - Linear and logistic regression, multilevel models, complex survey models, psychometric methods, principal components, time series, cluster analysis, sample size calculations, simulations
- Data cleaning, processing, and visualization
- Artificial intelligence and machine learning

MUSIC

- Flute and piccolo player with 25+ years of experience
- Knowledge of music theory and notation, music history, multiple genres, and copyright rules

COMMUNICATION

- Proficient in academic, technical, and business writing styles, with 15+ peer-reviewed publications
- Proven record of effective communication and timeline management across interdisciplinary teams
- Able to bridge the gap between technical, creative, and big picture concepts

SOFTWARE DEVELOPMENT

- Experience creating and implementing quality assurance plans
- Version control and change management using tools such as GitHub and Jira
- Requirements development and software testing
- Flexible coder with background in object-oriented, web-based, and statistical programming

Experience

Music technology consultant, 09/2021 - present

Self-employed, Apex, NC

- Data science and experiment planning for the music technology field (current client: Musical Health Technologies)

Caregiver, 05/2021 - 09/2021

Graduate Research Assistant, 01/2020 - 05/2020

Georgia Institute of Technology, Atlanta, GA

- Researched software used for music perception experiments, to inform development of new tools
- Expanded skill sets in survey development, experimental design, and Javascript coding

Full-time student, 08/2019 - 05/2021

Research Associate, 03/2016 - 08/2019

IMPAQ International, Columbia, MD

Senior Research Analyst, 05/2012 - 03/2016

- Supervised 2 employees and led teams of 2-6 as project director or task lead for 3 Medicare contracts
- Managed large and complex health care data (10 million+ observations), including cleaning, merging, aggregation, and quality assurance
- Performed statistical analysis for 4+ federal contracts
- Automated monthly reports using advanced SAS and SQL, reducing data processing time by 2 days
- Validated \$75 million in Medicaid claims data, closing out the contract on time and within budget
- Delivered 3 technical trainings to clients and industry partners, and frequently trained internal staff
- Modernized FORTRAN code for a federal program in SAS, identifying and correcting a 30-year-old error

Statistician, 11/2011 - 05/2012

Smith Hanley Consulting Group, Owings Mills, MD

- Tested software and ran statistical models for 2 sickle cell and cardiovascular disease clinical trials

Biostatistician, 08/2011 - 11/2011

Johns Hopkins University School of Medicine, Baltimore, MD

- Performed statistical analysis and wrote paper sections for 3 chronic kidney disease studies

Biostatistician II, 07/2007 - 08/2011

Wake Forest University School of Medicine, Winston-Salem, NC

- Analyzed data for 6+ research studies in public health, epidemiology, and clinical trials
- Co-authored 10+ journal articles, including 1 as first author
- Presented at national conferences, annual department seminars, and guest lecture at a local university

Recent Presentations

Light, L. & Arthur, C. (March 2021). Voice-Leading in Palestrina's Masses: A Comparison of Interval-succession Definitions. *Proceedings of Future Directions of Music Cognition*. Manuscript and video available at <https://osf.io/g8zx6>

Light, L. (July 2021). "Score Visualizations: A Visual Exploration Tool for Sheet Music." *Digital Libraries for Musicology*.