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
  - *Computational musicology*: 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, statistics, coding, and experiment planning for the music technology field

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-wrote 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.*