**Jonathan D. Groth, Ph.D.**

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Princeton, NJ

**Summary**

* Medical writer with 12+ years’ experience producing strategic communications; providing solutions through written and oral communication along with data analysis and data visualization.
* Excellent communication skills with the ability to present complex ideas to experts and novices. Experience of 4 years as a TA, 2 years of Teaching, 10 conference presentations, 4 peer reviewed articles, protocol design writing, grant writing, and employee training.
* Expertise in neuroscience, preclinical pharmaceutical research, data visualization, advanced analytical methods, statistics (classical and Bayesian), graph theory, time series analysis, forecasting, machine learning, natural language processing, and artificial intelligence.
* Excellent strategic problem-solving and analytical skills developing solutions in experimental design, communication of findings, computational and analytical methods, and data visualization.
* A passion for working in a team; learning from diverse backgrounds and cooperatively creating new ideas.

**Experience**

**Research Scientist** – Melior Discovery 08/17 – 10/17

* Took in client’s needs and requests developed solutions; creating research protocols and methods that met the high demands of clients.
* Wrote and edited protocols for experiments and edited proposals for preclinical pharmaceutical services.
* Developed new experimental and analytical models to be used in the preclinical biomarkers of pharmaceuticals. Resulting in new marketable pharmaceutical testing models.

**Instructor** - New Jersey Institute of Technology 09/15 - 05/16

* Designed course curriculum and created lectures and lab courses that introduced complex topics of engineering methods, computational analysis of systems, biomedical engineering concepts, neuroscience, and electrophysiology. Resulting in an increased understanding of students and improved grades.
* Developed different strategies for delivering information to students of widely varying backgrounds and ability to understand the information.
* Guided students on how to write technical documents clearly and concisely.

**Graduate Researcher** – New Jersey Institute of Technology09/08 - 05/15

* helped develop strategic communication schemes to better present information and methods of projects. Designing presentations, posters, scientific papers, conference abstracts, and grant applications that consolidated the array of research and marketed the lab to diverse groups
* Created written, oral, and data visualization communications to clearly explain the scientific findings the lab.
* Worked with Team members to improve experimental design and increase integration between different experiments being done on the project.
* Helped other lab members in their problem solving of difficulties in the projects.
* Designed experiments and wrote protocols for training and experimenting in a preclinical setting for neuroscience and neural engineering.

**Education**

**Data Science Bootcamp** - Rutgers University 11/18

**PhD Biomedical engineering** - New Jersey Institute of Technology 05/15

**MS Biomedical engineering** - New Jersey Institute of Technology 05/08

**BS Biomedical engineering** - Louisiana Tech University 02/05

**Technical Experience**

**Text Editors**: Microsoft Word, Pages, VIM

**Presentation Editors**: Power Point and Keynote

**Programing languages**: Python, MATLAB, JavaScript, Bash, and VBA

**Data Visualization**: Excel, Python’s matplotlib, Plotly, and D3.js

**Research Methods**: Journal databases, SQL databases, NoSQL databases, RESTful APIs, Web scraping, Regular expression document searching, Document keyword extraction, Topic modeling, Word vectors (tf-idf and word2vec models), Document vectors (distributed memory, and document bag of words models), Document clustering, Document classification, Social network analysis, Sentiment analysis, and Deep learning methods

**File Versioning Control**: Git

**Markup and Typesetting Languages**: HTML, CSS, Markdown, and learning LaTex