**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

* Wrote and edited protocols for experiments and edited proposals for preclinical pharmaceutical services.
* Took to the client’s needs developed solutions; creating research protocols and methods that met the high demands of clients.
* 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.
* 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.
* Created written, oral, and data visualization communications to clearly explain the findings of research in 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**

**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