GEOFFREY NEWMAN

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EDUCATION

Johns Hopkins University *2008 - Present*
PhD Candidate, Biomedical Engineering *Expected December 2015*
Dissertation: "Network Models of Neural Recordings"

City College of New York *2004 - 2008*
Bachelor of Engineering, Biomedical Engineering (Magna Cum Laude)
Minor: Applied Mathematics

EXPERIENCE

Fellow – The Data Incubator *2015*
· Performed web-scraping, data cleaning, network measures and prediction on real-world datasets
on the order of gigabytes using Python and Amazon cloud services for distributed computing.

Research Assistant – Johns Hopkins University *2008 - Present*
Brain Computer Interface, **PI**: Nitish Thakor
· Employed **graph theory** and **signal processing** techniques to solve neuroscience problems.
· Utilized **machine learning** methods to decode movement intent from neural recordings.

Research Assistant – City College of New York *2006 - 2008*
Eye Movement and Vision, **PI**: Jay Edelman
· Investigated **movement planning** of saccades via eye tracking data and non-invasive neural recordings.
· Created a **graphical user interface** to simplify data preprocessing.

PROJECTS

Baltimore Tax Credit Map *Fall 2015*
www.baltimoretaxcredit.com *Created at HopHacks*
· Designed an **interactive online visualization** of eligibility and claims for the Maryland homeowners'
tax credit to help inform Baltimore residence.
· Produced an **API** with Flask to hot-link each home on the map to its tax record.
· *Awards:* **First place overall**, best user experience (sponsored by Mission:Data), best use of Baltimore
open data (sponsored by Booz Allen Hamilton).

Product Suggestion Service - Performed **natural language processing** on the text of 581,933
product reviews. Suggested products with reviews closely matching the description that the user
provided.

MERITS AND TECHNICAL STRENGTHS

Honors and Awards	NIH Neuroengineering Training Fellowship (2008-2010).
	Howard Hughes Undergraduate Research Award (2008).
	Whitaker Foundation Research Scholarship (2004-2008).
Programming Languages	Python, Matlab, C++, Java, LaTeX, Qt, HTML, SQL.
Computer Systems and Software	Linux, Photoshop/GIMP, Cadence VLSI design tool, SolidWorks, Cloud Computing (Digital Ocean, Amazon Web Services).