

# GEOFFREY NEWMAN

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## EDUCATION

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### Johns Hopkins University

PhD Candidate, Biomedical Engineering

Dissertation: "Network Models of Neural Recordings"

2008 - Present

*Expected December 2015*

### City College of New York

Bachelor of Engineering, Biomedical Engineering (Magna Cum Laude)

Minor: Applied Mathematics

2004 - 2008

## EXPERIENCE

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### 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.

## PROJECT

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### Project - Baltimore Tax Credit Map

Fall 2015

[www.baltimoretaxcredit.com](http://www.baltimoretaxcredit.com)

*Created at HopHacks*

- Designed a website dedicated to helping residents of Baltimore take advantage of the Maryland homeowners' tax credit through **visualization** of whether individual homes are claiming the credit.
- Produced an **API** to hot-link each home on the map to its tax records with the city of Baltimore.
- **Awards: First place overall**, best user experience (sponsored by Mission:Data), best use of Baltimore open data (sponsored by Booz Allen Hamilton).

## MERITS AND TECHNICAL STRENGTHS

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### Honors and Awards

NIH Neuroengineering Training Fellowship (2008-2010).  
Howard Hughes Undergraduate Research Award (2008).  
Whitaker Foundation Research Scholarship (2004-2008).

### Journal Experience

Medical & Biological Engineering & Computing - Assistant Managing Editor (2013-Present) and Reviewer (2014-Present).  
Journal of Neuroscience Methods - Reviewer (2015).

### 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).