**Paul S. Scotti**

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Dear Hiring Manager,

I am a Cognitive Psychology/Neuroscience PhD student going into my final year at The Ohio State University. I am applying for the **Computational Neuroscience PhD Residency** because I have experience simulating neuronal populations in line with my neuroimaging experience.

I have simulated neurons to showcase improvements to inverted encoding models, a commonly used technique to decode experimental conditions/stimuli in neuroimaging. This work is available online as a preprint ([bioRxiv preprint](https://www.biorxiv.org/content/10.1101/2021.05.22.445245v1)) and has been released as a Python package which is already being used by hundreds of researchers in the field ([pypi.org/project/inverted-encoding](https://pypi.org/project/inverted-encoding/)).

Another example of my work is EduCortex (<paulscotti.github.io/educortex>), a browser-based 3D brain visualization tool to display fMRI meta-analysis maps ([published in JOSE](https://jose.theoj.org/papers/10.21105/jose.00075.pdf)). This work is the result of me leading a team at [NeuroHackademy](https://neurohackademy.org/), a summer school oriented towards neuroimagers and data scientists.

Diagram

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Figure 1. Screenshot of EduCortex, an educational tool to learn about functional specialization of the brain from fMRI meta-analysis maps.

I hope that this prior experience would be useful to working at X,

Paul