Dylan **Royston**

NEURAL ENGINEER/NEUROSCIENTIST

Pittsburgh, PA, USA

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About me

- **Award-winning** PhD candidate studying human sensorimotor control and brain-computer interfaces in the **Rehab Neural Engineering Lab** at the University of Pittsburgh (PI: Dr. Jennifer Collinger).

- **Expert** in multimodal neural data analysis and decoding, signal processing, pipeline development, human motor systems and multisensory integration.

- **Team leader** with experience in developing/executing large multidisciplinary projects, both collaboratively and independently.

- **Passionate** about developing real-time neural interfaces and applying my skills and knowledge to interesting and important questions while continuing to grow as a scientist and engineer.

Background

PhD* in Bioengineering   *Pittsburgh, PA*

UNIVERSITY OF PITTSBURGH ● CENTER FOR THE NEURAL BASIS OF COGNITION   *2014 - 2019* (Anticipated-November)*

BS in Biomedical Engineering ● BA in Neuroscience   *Charlottesville, VA*

UNIVERSITY OF VIRGINIA   *2009 - 2013*

Experience

University of Pittsburgh   *Pittsburgh, PA*

GRADUATE STUDENT RESEARCHER   *2014-2019*

- **Developing novel analysis techniques** for 4 intracortical and neuroimaging projects; **Building automated pipelines** to manipulate and process complex data structures
- **Designing behavioral paradigms** and collecting intracortical/neuroimaging experimental data from human subjects
- Presenting novel research results at 15 local, national, and international scientific conferences, resulting in **10 outstanding research awards** and 2 publications
- Leading 3 student-faculty committees to coordinate/execute department recruitment events and professional development functions

University of Virginia   *Charlottesville, VA*

UNDERGRADUATE RESEARCHER   *2011-2013*

- **Collected and analyzed novel data** from whole-cell patch-clamp recordings in rodent brain slices; Tested efficacy of novel antiepileptic compounds; **Awarded degree with distinction** for research thesis presentation

Fourth River Solutions (4RS)   *Pittsburgh, PA*

VICE PRESIDENT OF BUSINESS DEVELOPMENT   *2018-2019*

- **Managing key relationships** with potential and ongoing clients (between 2-4 at once); Developing project scope documents; Providing leadership to consultant teams
- **Leading development** of internal project-management tools and practices to streamline operations, resulting in new organization-wide SOP adoption

Languages/Tools

Languages

DATA ANALYSIS/ENGINEERING

- Matlab (8 yrs); data access and manipulation, spatial and time-series analysis, dimensionality reduction, model fitting, real-time decoding
- BASH (3 yrs); scripting neuroimaging processing and visualization pipelines
- Python (1 yr); real-time stimulus presentation and logging, data access and manipulation

Productivity Tools

NEUROIMAGING SUITES

- SPM (6 yrs); functional/anatomical MRI processing and model estimation
- AFNI/SUMA, Freesurfer (3 yrs); cortical surface reconstruction and functional data visualization

DEVELOPMENT TOOLS

- GIT (2 yrs), SVN (5 yrs); version control and collaborative development
- Wrike, Trello, Slack (2 yrs); project management and communication