Dylan **Royston**

Research Data Scientist

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Abo**ut 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 quantitative data analysis and interpretation, multimodal data modeling and visualization, research project design and management, and modern theories of neural computation.

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

- **Passionate** about applying my skills and knowledge to interesting and broadly relevant problems while continuing to grow as a scientist and engineer.

Bac**kground**

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*

Exp**erience**

University of Pittsburgh   *Pittsburgh, PA*

Graduate Student Researcher   *2014-Current*

- **Developing novel analysis techniques** for integrating intracortical and neuroimaging data; **Building automated pipelines** to manipulate and process complex multimodal data structures
- **Designing behavioral paradigms** and collecting awake behaving experimental data from human subjects (neuroimaging and in vivo electrophysiology)
- **Specializing** in analyzing and integrating diverse data types, modeling strategies, and multimodal data visualization
- Presenting novel research results at 15 local, national, and international scientific conferences, resulting in **10 outstanding research awards** and 2 publications

University of Virginia   *Charlottesville, VA*

Undergraduate Researcher   *2011-2013*

- **Collected and analyzed neural data** from whole-cell patch-clamp recordings in rodent brain slices; Tested efficacy of novel anti-epileptic 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); Identifying client needs and managing engagement teams to create high-value deliverables
- **Leading development** of internal project-management tools and practices to streamline operations, resulting in new organization-wide SOP adoption

Lan**guages/Tools**

Languages

Data Analysis/Engineering

- Matlab (8 yrs); data engineering and visualization, statistical inference and machine learning, 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
- MongoDB (1 yr); data management and analysis

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