Ronan Perry

Curriculum Vitae

Johns Hopkins University Baltimore, MD ⊠ rperry27@jhu.edu rflperry.github.io github.com/rflperry

Education

2016-present BS, Biomedical Engineering and BS, Applied Mathematics, Johns Hopkins University, Baltimore, MD.

GPA: 3.92

2018, Fall Study Abroad Experience, Technical University of Denmark, Lyngby,

Experience

Academic Research

- 2019 Research Assistant, Johns Hopkins University, Neurodata.
 - -Created simulations to validate performance of novel random forest algorithm
 - -Explored methods for generating and discriminating between low dimensional representations of brains
- 2018 Research Intern, EPFL, MIP:Lab.
 - -Developed pipeline to automatically segment non-human primate brain tissue classes.
 - -Utilized novel dynamic functional connectivity tools to identify spatial and temporal patterns in the brain
- 2018 Research Assistant, Johns Hopkins Medical, Popel Lab.
 - -Obtained data on NSCLC from literature and Fit a PKPD MATLAB model.
- Research Intern, Boyce Thompson Institute, Fei Lab.
 - -Developed scripts to investigate genetic sources of cucurbit diseases resistance.

Internships

- 2017 **Software Intern**, Rheonix Inc., Ithaca, NY.
 - -Worked in agile development team fixing product software bugs and testing new releases.
 - -Trained image classification model to improve accuracy and robustness.
- 2016 Software Intern, URSA Space Systems, Ithaca, NY.
 - -Created probabilistic geospatial MATLAB model linking objects to identifica-
 - -Developed pipeline to automatically populate database.

Preprints

[1] Ronan Perry, Tyler M. Tomita, Jesse Patsolic, Benjamin Falk, and Joshua T. Vogelstein. Manifold forests: Closing the gap on neural networks, 2019. URL: https://arxiv.org/abs/1909.11799.

Teaching

- 2019 **Teaching Assistant**, Johns Hopkins University. Applied Math 430: Intro to Statistics
- 2018 **Teaching Assistant**, Johns Hopkins University. Applied Math 420: Intro to Probability
- 2017 **PILOT Leader**, Johns Hopkins University. Multivariate Calculus tutor

Service

o JHU Splash: Taught custom classes to local highschoolers

Honors

o Dean's List (2016-2019)

Technical Skills

Computing Python, R, Java, MATLAB
Other Unix, Github, git, LATEX