

TIM FARRELL

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SUMMARY

- MS in Bioinformatics with 3 years experience developing/ deploying data management and analysis software in biomedical/ clinical/ biotech research environments.
- Creative, results-focused and capable of working on multiple projects simultaneously.

EDUCATION

Master of Science, Bioinformatics, Boston University, 2014-2016

Project: *Clinical sequencing classifier for structurally-variant phenotypes*

Activities: West End Boys and Girls Club STEM Tutor

GPA: 3.02/ 4.0

Bachelor of Science, Biomedical Engineering, Rutgers University, 2008-2012

Project: *Optimization of localizable stem-cell immunotherapeutic*

Activities: Army ROTC, Rutgers Future Scholars Mentorship Program

GPA: 3.31/ 4.0

SKILLS SUMMARY

Math/Stats/CS: descriptive/ inferential stats, probabilistic graphs, machine learning, graph theory, time series, casual modeling (some)

Bioinformatics: standard tools (samtools, bedtools, etc.), NGS experiment design/ data analysis, pipeline development/ management

Programming:

Data management: SQL, PostgreSQL, SQLite

Operating systems: Unix-like (preferred), Windows

Data analytics: R/ ggplot, pandas/ matplotlib/ scikit-learn, MATLAB, high-performance

Languages: Python, shell, Java, C/C++, Haskell, Ruby (some), Javascript HTML/ CSS (some)

RELEVANT EXPERIENCE

Research Assistant, Boston University, 2015-2016

Quantitative Neuroscience Lab, Dept. of Health Sciences

- Built pre-processing and preliminary analysis pipeline for dynamic functional connectivity study of Human Connectome Project data. [Repository](#).
- Resulting pipeline processed 2000 2GB images in under 6 hours on HPC cluster.

Biomedical Informatics Intern, Harvard Medical School, 2015-2016

Laboratory of Personalized Medicine, Dept. of Biomedical Informatics

- Engineered genomics-based classifier for blood antigen haplotypes, using NGS/ 3GS technologies, in collaboration with Bill Lane, MD PhD (Pathology, Brigham and Women's Hospital).
- Most performant classifier achieved 81% accuracy for composite antigenic phenotype prediction.

Bioinformatics Intern, New England Biolabs, 2015

Genomic Research Division

- Investigated error mitigation applications for third-generation sequencing (3GS) tech.
- Implemented, streamlined and executed sequencing and computational workflows.

Research Assistant, Boston University School of Medicine, 2014-2016

Primate Circadian Rhythm Lab, Dept. of Anatomy and Neurobiology

- Automated data recording, management and analysis infrastructure for 24-primate study, replacing spreadsheet-based setup with a database. [Repository](#).
- Reduced raw data footprint by 125 times and simplified automatic data reporting with SQL.