

# 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.

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## EDUCATION

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

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

GPA: 3.02/ 4.0

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

Project: *Optimization of localizable stem-cell immunotherapeutic*

GPA: 3.31/ 4.0

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## SKILLS SUMMARY

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

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

**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)

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## RELEVANT EXPERIENCE

**Research Assistant**, Boston University, 2015-2016

Quantitative Neuroscience Lab, Dept. of Health Sciences

- Built preprocessing and preliminary analysis pipeline for dynamic functional connectivity study of Human Connectome Project data.
- Produced a fast, memory-efficient system that processed 2000 brain images in under 6 hours on HPC cluster. [Repository](#).

**Biomedical Informatics Intern**, Harvard Medical School (HMS), 2015-2016

Laboratory of Personalized Medicine, Dept. of Biomedical Informatics (DBMI)

- Developed clinical sequencing classifier for blood antigen haplotypes, using both NGS and 3GS technologies/ data.

**Bioinformatics Intern**, New England Biolabs (NEB), 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

- Built data recording, management and analysis infrastructure for 24-primate study. [Repository](#).