TIMOTHY M. FARRELL

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OBJECTIVE

Internship in biotech/ medtech.

SUMMARY

Bioinformatics graduate student with engineering background, interested in developing and applying computational techniques/ tools for biotechnological development.

EDUCATION

Master of Science, Bioinformatics, 2016 (exp)
Boston University, Graduate School Arts and Sciences with College of Engineering
GPA: 3.03/ 4.0

Bachelor of Science, Biomedical Engineering, 2012
Rutgers University, School of Engineering
GPA: 3.31/ 4.0

SKILLS

Bioinformatics: basic tools (samtools, bedtools, etc.), alignment, NGS, 3GS

Mathematics: graph/ network theory, stochastic modeling, numerical methods

Statistics: linear modeling, parametric methods, hypothesis testing

Programming: Python, Java, shell scripting, C++/C

Data engineering: Python (pandas, matplotlib), R, MATLAB/ Octave

Database systems: PostgresSQL, SQLite

WORK EXPERIENCE

Bioinformatics Intern, May - Aug 2015
Genomic Research Divison, New England Biolabs (NEB)
- Investigated development of error mitigation applications for emerging Oxford Nanopore Techonologies' (ONT) devices. Developed and streamlined sequencing and computational workflows for the ONT MinION, facilitating future work at NEB in this space.

Research Assistant, Dec 2014 - Aug 2015
Dept of Anatomy and Neurobiology, Boston University Medical Center
- Built and maintained the data management and analysis infrastructure for BUMC Primate Circadian Rhythm Lab (Irina Zhdanova, MD PhD).

Engineering Officer, Nov 2013 - present
424 EN Co, US Army Reserve
- Platoon leader for 20+ soldiers in vertical engineering company.

RESEARCH

Optimization of localized immunotherapeutic, Aug 2011 - May 2012
Dept of Biomedical Engineering, Rutgers University
- Optimized immunomodulatory functionality of novel stem cell-based therapeutic for treating localized autoimmune and inflammatory disease.

PROJECTS

Gene regulation model of hematapoietic stem cell emergence, Spring 2014
- Implemented deterministic gene regulatory network model of hematopoietic stem cell emergence using CL-MATCONT, a bifurcation continuation package for MATLAB.