# Ross Donatelli

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North Liberty, IA rosstelli.github.io

# RELEVANT EXPERIENCE

#### Data Analysis Engineer

September 2017 - Current

JMI Laboratories

North Liberty, IA

- Supplied data for scientific publications on antimicrobial surveillance data through PostgreSQL and Ruby, and provided additional features for Ruby on Rails application
- Performed analysis on data with artificial intelligence and statistical methods, including Gaussian Mixture Models, Nonlinear fitting, Logistic Regression, etc.
- Developed web application for chemical calculations of antimicrobial panel production

## Ohio State Graduate Research & Teaching Assistantship

August 2015 – August 2017

Columbus, OH

The Ohio State University

- Numerical Methods for Determining Multistationarity in Chemical Reaction Networks
- Experimented with numerical sampling methods to determine stable states in multidimensional space
- Lecture and grading of Introduction to Computer Programming in Java

# **Analytical Software Intern**

May - August 2015 & 2017

Melbourne, FL

ENSCO, Inc.

- Statistical analysis of patterns using Machine Learning and other techniques in R
- Produced tools using Java and RESTful services

#### Student Research Intern

May 2014 - July 2014

Raleigh, NC

North Carolina State University

- Computational Model of the Thyroid Hormone Homeostasis and its Manipulation by Chemicals
  - Created a PBPK Model describing the dynamics of PTU in the body using ODE solvers and visualizations in MATLAB

#### Student Research Intern

May 2013 - August 2013

Virginia Bioinformatics Institute, Virginia Polytechnic Institute

Blacksburg, VA

- A Regulatory DNA Mismatch Repair Network and the Role of MicroRNAs
- Established a Boolean model of network interactions of DNA mismatch repair to calculate robustness of microRNAs
- Presented at MBI Capstone Conference at The Ohio State University

### **EDUCATION**

# Masters of Science, Computer Science, Study - Artificial Intelligence

The Ohio State University, Columbus, OH

GPA: 3.60/4.0, Graduate Fellow

August 2017

## Bachelors of Science, Biomathematics, Minor - Computer Science

Florida Institute of Technology, Melbourne, FL

GPA: 3.85/4.0 May 2015

## TECHNICAL SKILLS

Programming Languages: Java, R, Ruby, JavaScript, MATLAB, Octave, Python, C++, PHP

Frameworks, Tools, & Software: Git, D3, VirtualBox, Ruby on Rails, XCode (iOS), Android Studio, Apache, Tomcat, Docker Database Technologies: Amazon Web Services (S3, DynamoDB & Elastic Beanstalk), SQLite, Pythia (OSU developed), PostgreSQL

# ORGANIZATIONS, HONORS, & AWARDS

2015 - 2016 The Ohio State University Fellowship Recipient

2013 - 2015 Allen S Henry Scholarship Recipient

2014 - 2015 Distinguished Student

2011 - 2013 Florida Tech NCAA Swim Team Division II - Team Captain