BENJAMIN DRAVES

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EDUCATION

Lafayette College (August 2014 - Present) *Overall GPA: 3.86 (In Major: 3.80)*
B.S. in Mathematics Degree expected May, 2017

University of Mount Union *GPA: 4.0*
Post - Secondary Study August 2013 - May 2014

Alliance High School *GPA: 4.0*
Graduated Valedictorian August 2010 - May 2014

EXPERIENCE

Research June 2015 - Present
Undergraduate Research *Easton, PA*

- Treelet Covariance Blocking - Developed and analyzed an algorithm (entitled Treelet Covariance Blocking) to better estimate relatedness and narrow-sense heritability of quantitative phenotypic traits within a population. (*ongoing*). Research mentor: Dr. Trent Gaugler. Funded by EXCEL scholarship committee, Lafayette College.
- Tempo of the Times - Conducted original research examining the connection between musical compositions and social climate. Statistical models were built to analyze and predict musical qualities as a function of political events. Research was presented at Bucknell Digital Scholarship Conference and was accepted for presentation at NCUR 2016.

Consulting September 2015- Present
Consultant *Easton, PA*

- Crayola.com- Applied mixed effects models to Crayola sales data to optimize online sales and advise marketing strategies.
- Victualic - Implemented linear programming methods to optimize supply chain decisions. Models were constructed on recorded shipping estimates provided by Victaulic.
- Easton Area Neighborhood Center (EANC)- Designed, piloted, and distributed a public opinion survey to inform future programming of EANC.
- Easton City Schools (ECS)- Analyzed the effects of the Classroom Diagnostic Tool (CDT) on student's Keystone exams to inform circular design of ECS.

Instruction September 2015- Present
Instructor *Easton, PA*

- Supplemental Instructor - Applied Statistics SI. Prepared and proctored review sessions and individually tutored students pertaining to the methods covered in the course.
- Calculus Cavalry Tutor - Tutored calculus students individually to aid in the introductory Calculus sequence.
- Applied Statistics Lab TA - Aided in proctoring labs for Applied Statistics where students were introduced to statistical computing. Worked individually with students - teaching R in a hands on setting.

Github Projects April 2015-Present

- My other current projects can be found on my blog dravesb.github.io.

RELEVANT COURSEWORK

Mathematics: Transition to Theoretical Mathematics, Differential Equations & Linear Algebra, Vector Spaces, Abstract Algebra, Real Analysis, Real Analysis II (*ongoing*), Complex Analysis, Honors Thesis (*ongoing*)

Statistics: Probability, Statistics, Mixed Effect Modeling, Time Series Analysis, Survey Design & Analysis, Operations Research

Computer Science: Introduction to Computer Science, Data Structures and Algorithms, Agent Based Modeling, Analysis of Algorithms (*ongoing*)

PROGRAMMING CAPABILITIES

Proficient: Java, R, SAS, Python
Intermediate: C, C++, Hive, SQL
Typesetting: Latex, Microsoft Office

ACTIVITES & HONORS

Information Technology & Library Committee Member	March 2015 - Present
Pi Mu Epsilon President (Mathematical Honor Society)	March 2015 - Present
Founding Member of the Statistics House	August 2015 - May 2016
Mathematics Club Board Member	August 2015 - Present
Treasurer of College Democrats	August 2015 - Present