# **Daniel Brumley**

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## **OBJECTIVE**

Seeking a position as a data analyst where I can leverage my award-winning research/presentation skills and graduate-level background in applied mathematics, statistics, computer science, and data science to provide powerful insights to businesses.

# **SKILLS SUMMARY**

- 2+ years of statistics and data analysis/visualization experience in R with thorough knowledge of tidyverse
- 1+ years of machine learning experience (linear/logistic regression, kNN, Random Forest, PCA, etc.)
- 1+ years of prior experience with SQL and familiarity with relational database concepts
- 2+ years of prior programming experience (C++, Java) with knowledge of OOP principles
- Advanced proficiency with Microsoft Excel (vlookup, pivot tables, VBA)
- Intermediate proficiency with Tableau
- Award-winning presentation skills

## **EDUCATION**

## 1/17-5/18 M.S. in Applied Mathematical Science

University of Central Oklahoma, Edmond, OK

GPA: 4.00

Thesis: Existence Results for a Class of Even-Order Boundary Value Problems

Thesis Advisor: Dr. Britney Hopkins

## 8/10-5/16 B.S. in Mathematics, Minor in Computer Science

University of Central Oklahoma, Edmond, OK

GPA: 3.47

Awarded the Department of Mathematics and Statistics Outstanding Graduating Senior Award.

# **WORK EXPERIENCE**

#### 8/18-7/19 **Teaching Assistant**

Department of Mathematical Sciences, University of Delaware

- Planned and led discussion sessions for multiple sections of Calculus 1
- Wrote and graded discussion guizzes and weekly group work
- Scored higher than departmental averages in every category of instructor evaluations

# 1/17-5/18 **Teaching Assistant**

Department of Mathematics and Statistics, University of Central Oklahoma

• Graded papers for several sections of Foundations of Geometry and Measurement, proctored exams, and tutored students in the Mathematics Lab

## 6/16-9/16 **Software Engineer**

Boeing, Oklahoma City, OK

Maintained legacy C++ code for surveillance aircraft platforms that enable the detection, identification, and tracking
of airborne threats

## 8/14-5/16 **Supplemental Instructor**

College of Mathematics and Science, University of Central Oklahoma

- Attended all lectures of an assigned Calculus 1 class
- Planned and led two 1-hour Supplemental Instruction sessions each week to solidify the students' understanding of Calculus concepts
- Maintained records of student attendance and session goals and met weekly with supervisors

# 5/10-7/14 Assistant Manager

Murphy USA, Edmond, OK

- Trained new employees
- Supported the Manager with the daily operations and maintenance of the store

#### SPECIAL PROJECTS AND RESEARCH

## 6/19-7/19 UNIDEL Summer Research

Department of Mathematical Sciences, University of Delaware Advisor: Dr. Pak-Wing Fok

- Investigated the stochastic differential equations and corresponding PDEs governing biophysical processes related to protein folding under Smoluchowski and Klein-Kramer dynamics
- Funded via \$3600 UNIDEL Summer Research Grant

# 8/17-5/18 Pathway and Gene Selection with Guided Regularized Random Forests

Department of Mathematics and Statistics, University of Central Oklahoma Advisor: Dr. Tyler Cook

- Developed simulations in R to assess the efficacy of a new methodological approach that utilized guided regularized random forests to identify important genes and genetic pathways when modeling for a particular biological outcome using microarray data; applied the method to well-known breast cancer data to determine important gene pathways
- Presented results at the 2018 Joint Mathematics Meetings in San Diego
- Created data visualization in R that won the Best Visualization Award at the 2018 UCO CREIC Symposium

## 1/16-5/16 Project STLR: Student Readiness Assessment

Center for Transformative Learning, University of Central Oklahoma Advisor: Dr. Brad Paynter

- Programmed an algebra assessment in WeBWorK (via Perl and the Problem Generation Markup Language) for the Department of Mathematics to gauge readiness of incoming Calculus I students
- Funded for 10 hours of work per week through the Center for Transformative Learning

# 8/15-5/16 **Urban ACT Prep**

College of Mathematics and Science, University of Central Oklahoma Advisors: Dr. Britney Hopkins, Dr. Kristi Karber

- Worked with advisors and a team of four tutors to provide weekly free ACT prep to low-income students from Douglass Mid-High School in Oklahoma City
- Created and evaluated practice tests to monitor student progress
- Funded for 10 hours of work per week through the College of Mathematics and Science

# 1/15-5/16 Undergraduate Mathematics Research

Department of Mathematics and Statistics, University of Central Oklahoma Advisors: Dr. Michael Fulkerson, Dr. Britney Hopkins, Dr. Kristi Karber, Dr. Thomas Milligan

- Used functional analysis techniques to demonstrate existence of solutions for classes of differential equations
- Published three articles in professional mathematics journals and presented research at state, regional, and national conferences
- Awarded the R.B. Deal First Place Undergraduate Oral Presentation Award at the 2016 OK-AR MAA Meetings