

Daniel Brumley
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CAREER 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
- Self-motivated researcher with a proven ability to relate complex topics to a general audience

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 quizzes 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 an application in R to visualize random forest results using the shiny and forestFloor packages 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 including the 2016 Joint Mathematics Meetings in Seattle
- Awarded the R.B. Deal First Place Undergraduate Oral Presentation Award at the 2016 OK-AR MAA Meetings