

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE 440 COLLEGE HALL

600 FORBES AVENUE PITTSBURGH, PA 15282 TEL 412.396.6467 www.duq.edu

April 24, 2015

Faculty Position Recommendation for Lisa Over

To the Faculty Search Committee,

I would like to highly recommend **Lisa Over** for your Computer Science or Mathematics faculty position opening. Lisa is a spring 2015 graduate of the Computational Mathematics Master's Program at Duquesne University. Our program blends the three disciplines of Mathematics, Computer Science, and Statistics in its core curriculum, and allows students to concentrate in any of these three areas through elective coursework. Occasionally, we select our best students enrolled in their second year of this program to teach an introductory, freshmanlevel course in mathematics, statistics, or computer science. Lisa Over is one of the rare students we have selected for this purpose, and she graciously agreed to teach a section of MATH 125 (Fundamentals of Statistics) for the Spring 2015 semester.

In the fall 2014 semester, Lisa presented a 40-minute lesson on sampling distributions to a Math 225 course (Biostatistics I). I was asked to observe Lisa's presentation and provide an evaluation; I happily obliged. Some of the key takeaways from my evaluation of Lisa's teaching at the college-freshman level:

- Lisa used class time in a very effective manner. In the first 15 minutes she presented the lesson, followed by 10 minutes of group activity, followed by 15 minutes of post-activity analysis.
- Lisa demonstrated outstanding preparation, including her informative power-point slides and matching handout, as well as the planned class activity.
- Lisa has obvious mastery over the material. This particular lesson introduced the students to the concept of a sampling distribution. Lisa's activity demonstrated a nice result that, under mild conditions, the sampling distribution of the sample mean is approximately normal.

In addition to observing Lisa teach, I have also had her as a student in three of my courses: Probability and Markov Chains, Statistical Inference, and Statistical Computing. Furthermore, I was her primary advisor for her Master's thesis, wherein she used multiple linear regression and logistic regression to explore the relationship between household income and standardized test scores for school districts across Allegheny County.

Lisa is one of the rare students that combines an outstanding intellect with an exceptional work ethic. She has excellent programming skills in Java and in **R**, excellent mathematical skills, and has rich experience with both teaching and conducting research in statistics. She is a proactive, self-sufficient learner, and would make a fantastic teacher and role model for high school students. I give her my highest recommendation for any open mathematics, computer science, or statistics faculty position at the high school level. You will be impressed.

I would be happy to candidly address any questions you may have about Lisa. I can be reached at (412)396-6468, or by email kernj@duq.edu.

Sincerely,

John C. Kern II, Ph.D.

Associate Professor and Chair

Department of Mathematics and Computer Science

Duquesne University