

Department of Statistics

December 14, 2020

To whom it may concern,

I am delighted to confirm Joseph Zemmels' status as a Ph.D. student in the Statistics Department at Iowa State University. Joe's submission to the student paper competition, "cmcR: Congruent Matching Cells Method in R for Cartridge Case Identification" is his own work, undertaken with the supervision of myself and Dr. Heike Hofmann, who is at Iowa State University. Joe has worked through the numerous papers from the National Institute of Standards and Technology detailing the various forms of the Congruent Matching Cells method, and has designed and implemented the open-source version of this method with occasional recommendations from his advisers but very little hands-on coding. As I expect you will agree, this work showcases his skills in computing, as well as his devotion to open-source methods and principles of computational reproducibility, which are both extremely important in statistical forensics.

This paper has not been submitted to any other journals, though we intend to submit the full version of this paper (which is still being revised) to the R Journal within the next few weeks. His package, cmcR, has been submitted to CRAN and we are waiting to hear back on its status. We look forward to the rest of Joe's contributions to the field of statistical computing and statistical graphics as he finishes his doctoral work.

Sincerely,

Susan Vanderplas

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