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RStudio
250 Northern Ave
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Cover Letter for Developer Educator

Dear RStudio Hiring Team,

Thank you for the opportunity to apply for the Developer Educator position at RStudio. As someone who is passionate about both data science and education, I relish the opportunity to connect the R community with RStudio's package development tools. I am excited to apply my teaching abilities and development skills to create accessible, pedagogically-sound resources and advocate for developer's needs.

As a teaching assistant at Iowa State University, I frequently develop educational resources used by other educators. I created multimedia educational resources for a Visual Business Analytics online course I teach that introduces Master's of Business Analytics students to data visualization in R. This includes a series of self-produced videos about cleaning and summarizing data with tools like dplyr, ggplot2, and shiny. I also created accompanying RMarkdown files for students to follow along with the videos and perform their own analyses. This aligns with my preferred teaching philosophy: John Dewey's experiential learning that emphasizes "learning by doing." I received positive feedback from students on these videos, who felt more comfortable with performing data analyses despite having little prior R programming experience. These educational materials will be used in future iterations of the course by other instructors.

I have also developed multiple R packages to document and share my research in my research assistant role at the Center for Statistics and Applications in Forensic Evidence. My Ph.D. research focuses on developing objective and statistically-sound techniques to compare cartridge case impression evidence. I have published one package on CRAN called "cmcR" and plan to publish at least two more, "impressions" and "scored," that are currently available on my GitHub. It is important to me that these methods are accessible, both in terms of acquisition and comprehensibility, to fellow researchers and forensic practitioners. I created the packages to align to the four principles of a tidy API according to Hadley Wickham's "tidy tools manifesto." This includes writing code and documentation to be human-friendly and modularizing the analysis pipeline to work easily with the pipe operator. I regularly use tools like devtools, usethis, testthat, and roxygen2 to ease package creation and documentation. I recognize how important these packages are to supporting a robust and productive developer community.

I look forward to discussing how my training and experience will be an asset to RStudio and the R developer community. I am a firm advocate of RStudio's mission to help people understand data using accessible, open-source tools. I am eager for the opportunity to support this mission as an educator and advocate for the R community.

Best regards,

Joseph Zemmels