

The bayesvl computing program saw increasing downloads in November 2023

AISDL Team

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The <u>bayesvl</u> program operates on the R statistical computing language and the Hamiltonian MCMC computing language Stan. The <u>bayesvl</u> software package has been technically verified and officially approved by the R Core Team as a standard library, distributed through <u>The Comprehensive R Archive Network</u> (CRAN), since late May 2019 [1].

Since COVID-19, the AISDL's research team started tracking monthly downloads provided on the first few days of the month (for the previous month). AISDL has data from July 2021 to the end of November 2023.

According to data provided by CRAN, in November 2023, the number of downloads of the *bayesvl* program reached 293, showing an increase of +57.5% compared to the previous month.

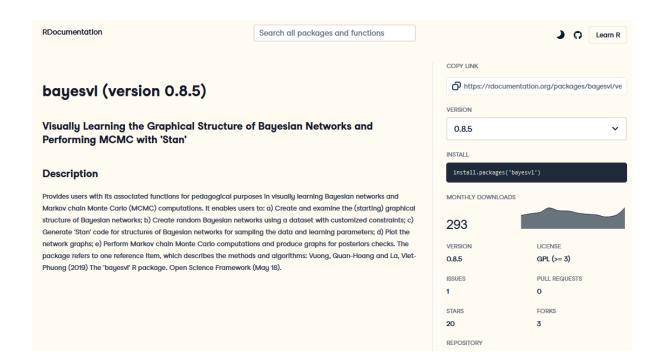


Figure 1. CRAN data (via RDocumentation) revealing the number of *bayesvl* downloads in November 2023 (extracted on December 2, 2023)

This increase can be attributed to the following two factors.

First, awareness of the features and uses of the <u>bayesvl</u> program has likely increased, partly because research studies using <u>bayesvl</u> have reached more readers.

Second, in November 2023, AISDL participated in a training program on applied scientific computing in social science & humanities research, co-organized by the Institute for Advanced Study in Mathematics (VIASM) and Hanoi University (HANU). The program had quite a few people from many universities attending. Participants directly used <u>bayesvl</u> during the training process, accompanied by main documents drafted based on the <u>special-purpose book on BMF Analytics</u> [3], under the supervision of the course's mentor, Dr. Minh-Hoang Nguyen.

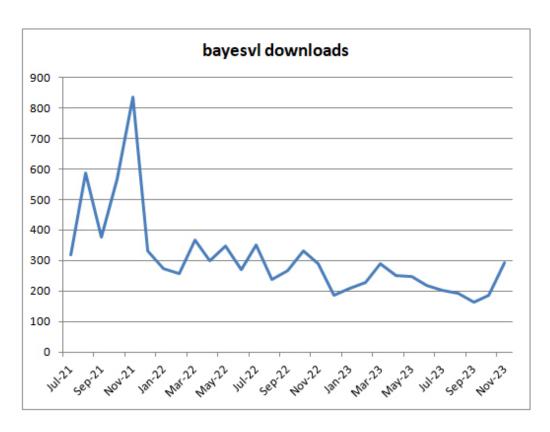


Figure 2. Data on *bayesvl* downloads from CRAN from July 2021 to November 2023.

Thus, with updated data for November, the total number of downloads of <u>bayesvl</u> from July 2021 to November 2023 has reached 8,974. The number may be small, especially compared to various well-known computing programs. Nonetheless, for AISDL, it is not at all a small feat. *Pas mal du tout*!

The fun and cheerful spirit of "Mr. Kingfisher" [4] has contributed to alleviating work difficulties during the 2021-2023 period. In fact, the fable book *The Kingfisher Story* Collection was also introduced to users by Dr. Minh-Hoang Nguyen in the 2023 VIASM-HANU BMF Analytics course through our little invention, "Kingfisher's quotes".

References

[1] La VP, Vuong QH. (2019). bayesvl: Visually Learning the Graphical Structure of Bayesian Networks and Performing MCMC with 'Stan'. https://cran.r-project.org/web/packages /bayesvl/index.html

[2] Duong MPT. (2023). BMF Analytics delivered at the 2023 VIASM-HANU Conference. https://mindsponge.info/posts/262

[3] Vuong QH, Nguyen MH, La VP. (2022). *The mindsponge and BMF analytics for innovative* thinking in social sciences and humanities. De Gruyter.

[4] Vuong QH. (2022). The Kingfisher Story Collection. https://www.amazon.com /dp/B0BG2NNHY6



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