



Tacos & Bats

rstudio::conf 2019



Keynotes

Setting the themes for the conference

- **Joe Cheng:** Shiny in production: Principles, practices, and tools
- **Felienne:** Explicit Direct Instruction in Programming Education
- **David Robinson:** The unreasonable effectiveness of public work



R in Production



Shiny in production

Challenges for Shiny in production

- Cultural
- Organisational
- Technical



Picture by JD Long



Shiny in production

Addressing technical challenges:

- `shinyloadtest` - for load testing of Shiny apps
- `plot caching` - to speed up repeated plots
- `profvis` - a profiler for R






R in production




Mark Sellors

Two paths for R into production

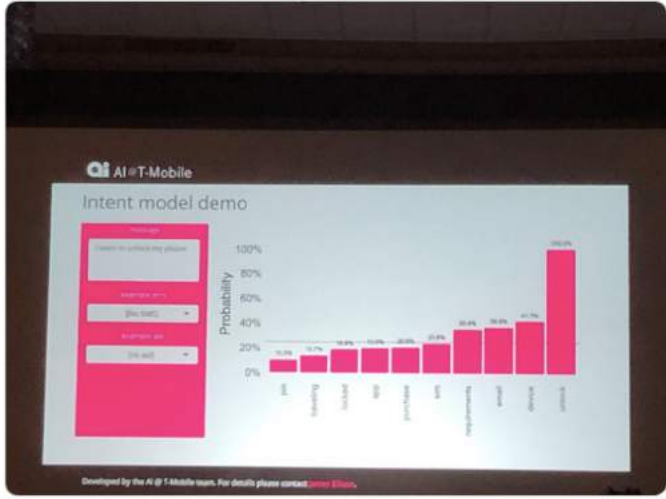
- **Magic** aka getting people on board via a fantastic Shiny app
- Build **trust** in your work

 **Emily Robinson**
@robinson_es Follow

How [@heatherklus](#) and [@skyetetra](#) get ready to put machine learning models in [#rstats](#) in production:

-  use rmarkdown for exploratory analysis
-  Save it to a flat file
-  Show off the model with shiny to get buy-in from business stakeholders!

[#Rstudioconf](#)




The screenshot shows a Shiny application interface titled "Intent model demo" with the "AI @ T-Mobile" logo. On the left, there is a pink sidebar with a search input field and several buttons labeled "Show start", "Show end", and "Show all". On the right, a bar chart displays the probability distribution for various categories. The y-axis is labeled "Probability" and ranges from 0% to 100%. The x-axis lists categories: "all", "health", "travel", "food", "entertainment", "shopping", "education", "sports", "technology", "finance", and "other". The "other" category has the highest probability, at approximately 85%.

Category	Probability
all	~10%
health	~10%
travel	~10%
food	~10%
entertainment	~10%
shopping	~10%
education	~10%
sports	~10%
technology	~10%
finance	~10%
other	~85%

Developed by the AI @ T-Mobile team. For details please contact [@mike_klein](#).




R in production

 **Caitlin Hudon** 🧑‍💻
@beeonaposity Following


Great list of CS / software engineering concepts a data scientist might need to learn more about to get things into production.

via @sellorm at #rstudioconf #DSLearnings



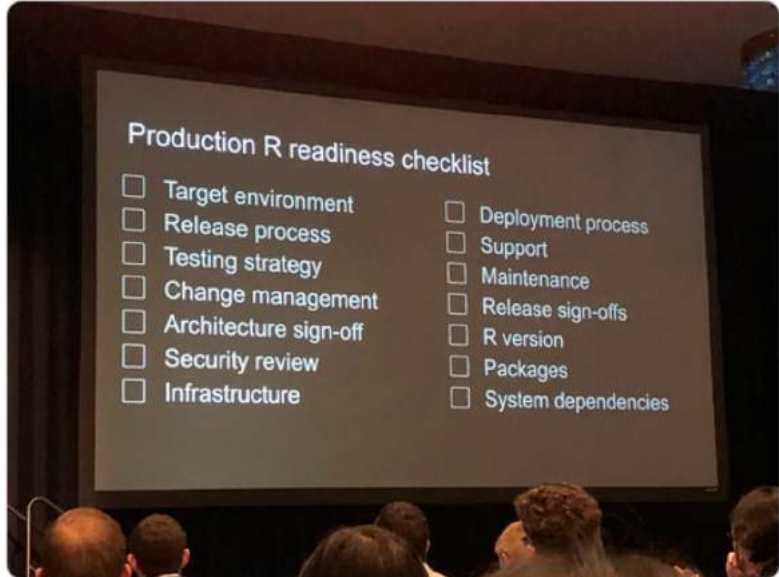
Tackling things head on...

- IT
- QA Teams
- Automated testing
- Staging servers
- Integration environments
- CI/CD
- Blue/Green deployments
- Change management
- Pre-prod
- Networks
- Security
- Architecture
- DevOps
- 24/7 Support teams
- Release management
- Containers

 **Caitlin Hudon** 🧑‍💻
@beeonaposity Follow

Production-readiness checklist for putting #rstats into production ✓

via @sellorm at #rstudioconf



Production R readiness checklist

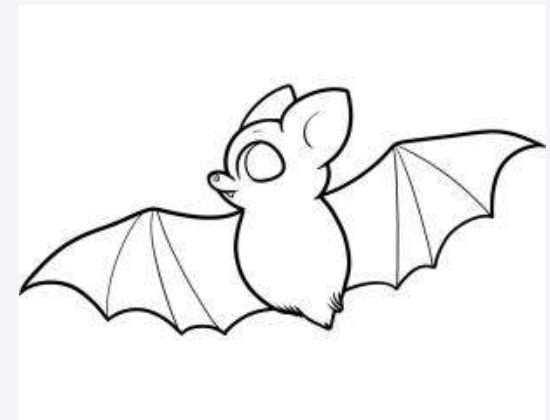
- Target environment
- Release process
- Testing strategy
- Change management
- Architecture sign-off
- Security review
- Infrastructure
- Deployment process
- Support
- Maintenance
- Release sign-offs
- R version
- Packages
- System dependencies



R in production

Other talks to check out

- [Jacqueline Nolis and Heather Nolis: Push straight to prod](#)
- [James Blair on Democratizing R with Plumber APIs](#)
- [Sean Lopp on the RStudio Package Manager](#)
- [Jeff Allen on RStudio Connect: Past, present, and future](#)

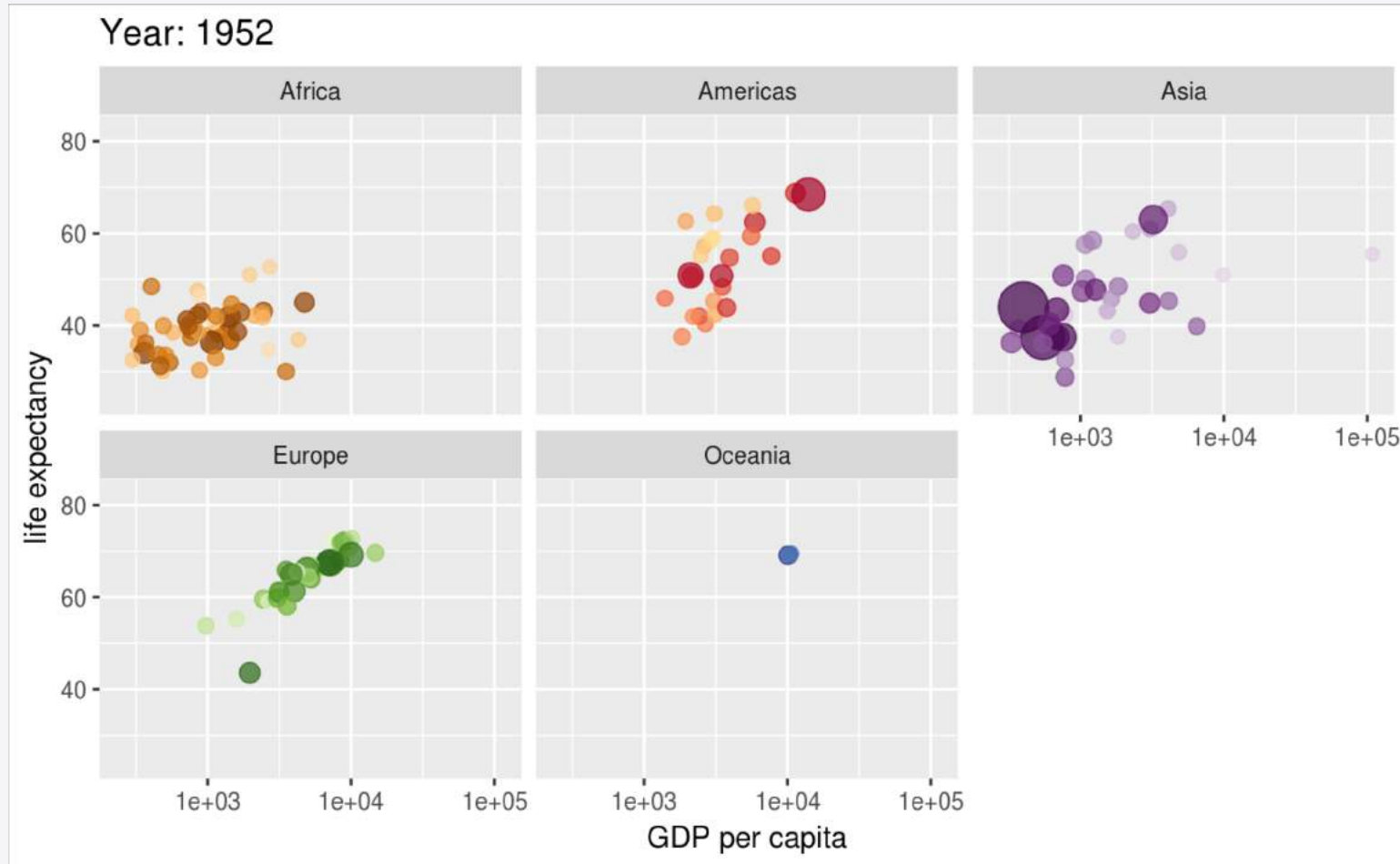


Package Highlights



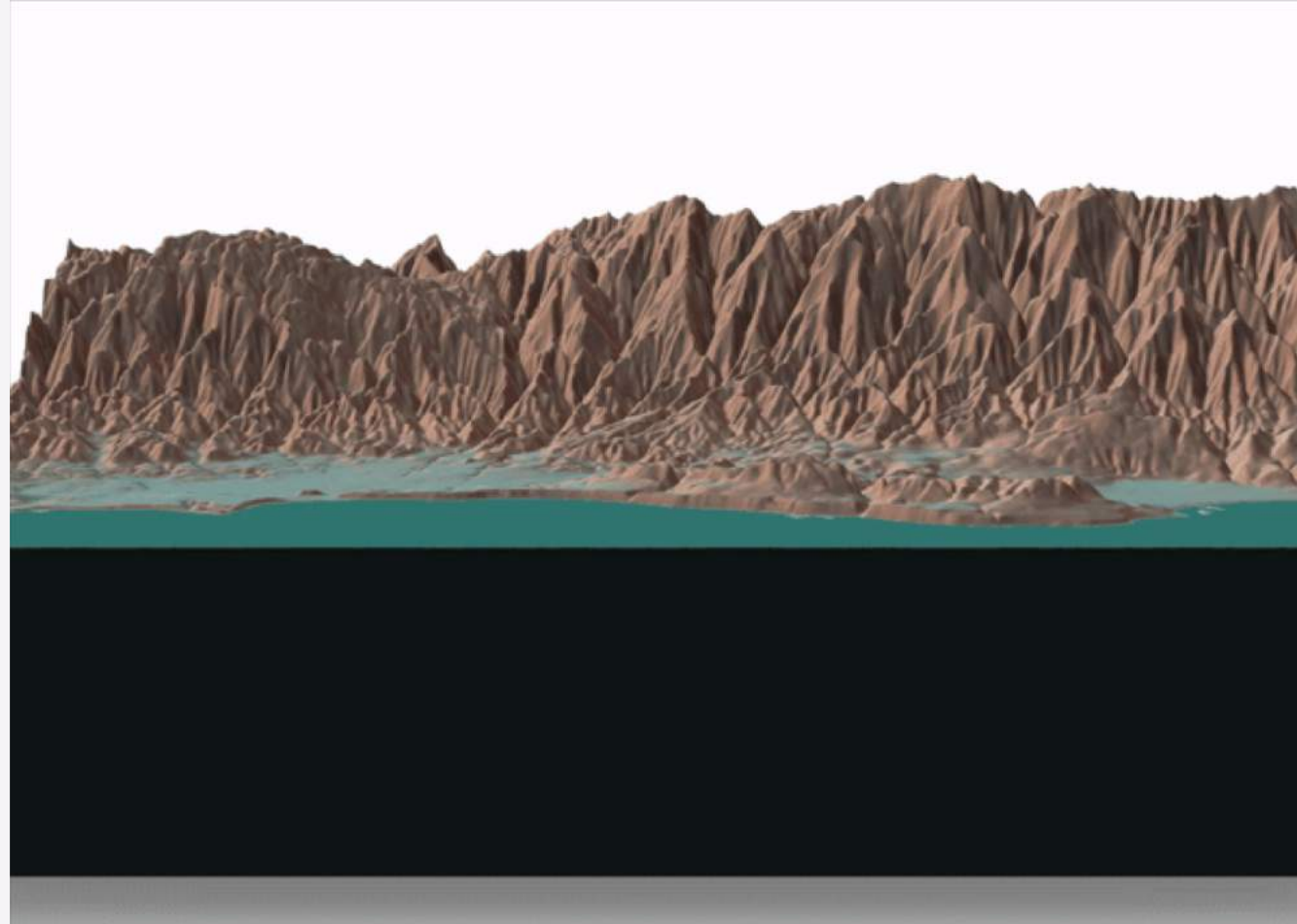


Package highlights - gganimate





Package highlights - rayshader



Package highlights

Programming / Packages

- Jenny Bryan: tidyeval in context
- Lionel Henry: tidyeval
- Max Kuhn: parsnip
- Alex Hayes: broom
- Jim Hester: itdepends
- Gábor Csárdi: pkgman (*now pak*)



More talks to watch

My personal list

- **Kara Woo:** Box plots – A case study in debugging and perseverance
- **Hadley Wickham:** vctrs: Tools for making size and type consistent functions
- **Mike K Smith:** The lazy and easily distracted report writer: Using rmarkdown and parameterised reports



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- ~~Mike K Smith: The lazy and easily distracted report writer: Using rmarkdown and parameterised reports~~



More talks to watch

Beyond the code

- **Caitlin Hudon:** Learning from 8 years of data science mistakes
- **Angela Bassa:** Data science as a team sport
- **JD Long:** Putting empathy in action - Building a 'community of practice' for analytics in a global corporation





Resources

Karl Broman's repo with links to slides, workshop material, e-posters, blog posts:

<https://github.com/kbroman/RStudioConf2019Slides>

Full conference roundup on the Mango blog

<https://www.mango-solutions.com/blog/rstudioconf-2019>

All the videos:

<https://resources.rstudio.com/rstudio-conf-2019>

