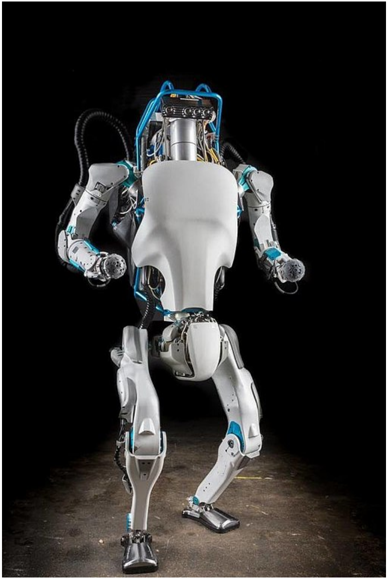
Exploring data

Rote analysis vs. snooping



Spurious correlations

There's a whole website about this

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Outline

Individual variables

Bivariate data

Multiple dimensions

Multiple factors

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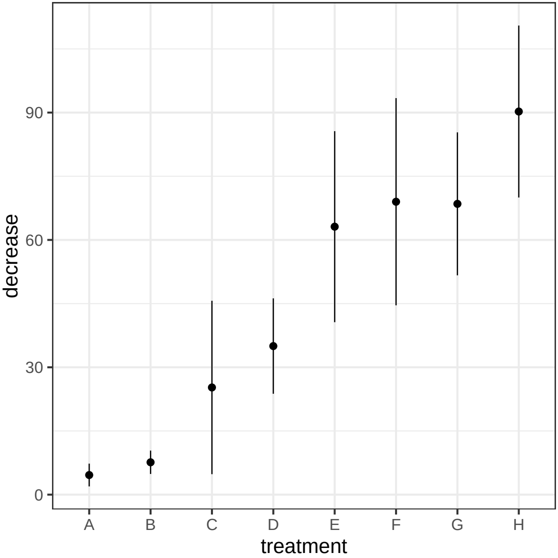
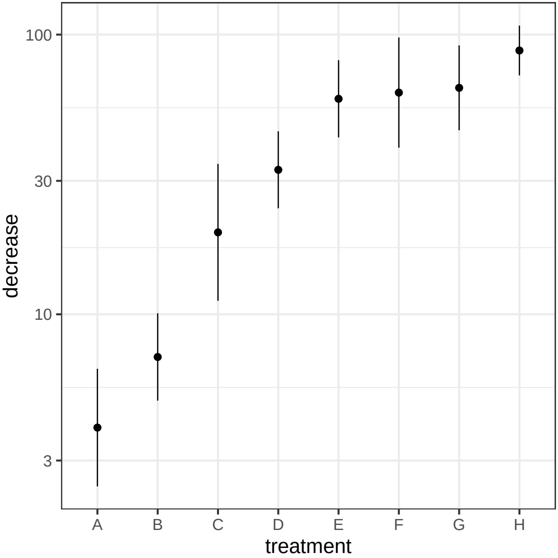


Means and standard deviations



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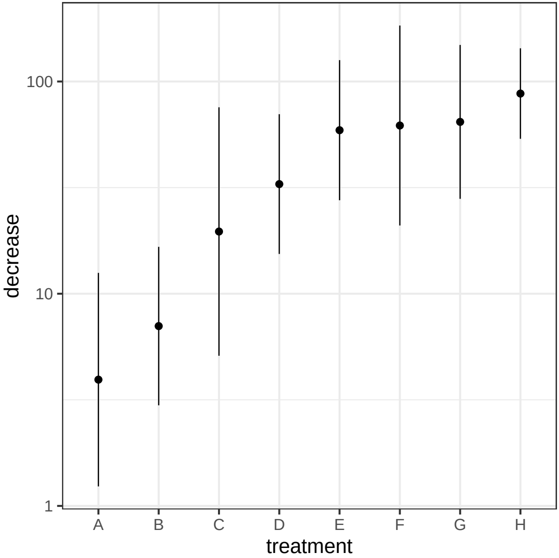
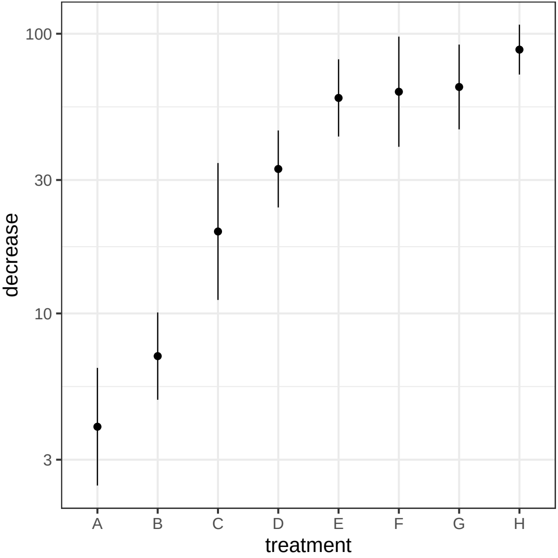
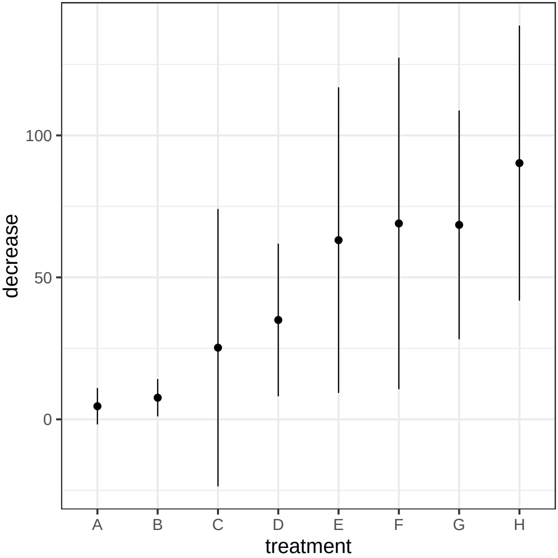


Means and standard deviations (repeat)

Next steps?



Non-parametric (repeat)



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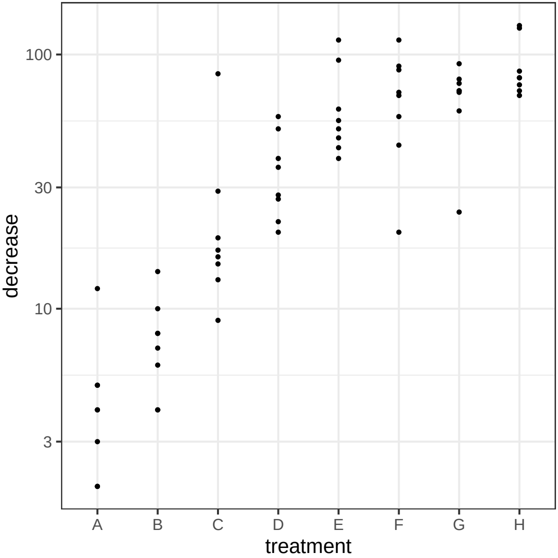
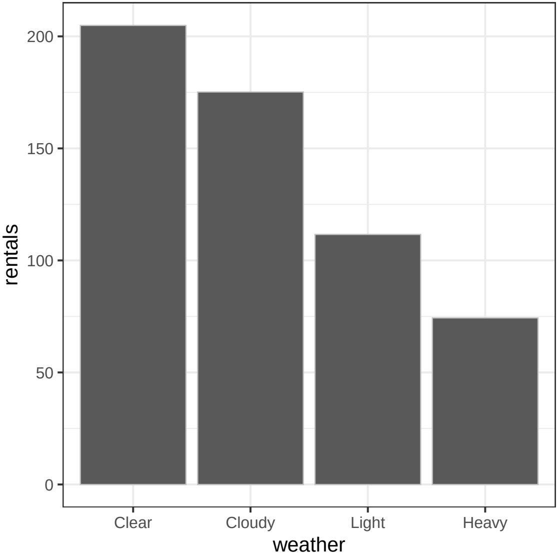
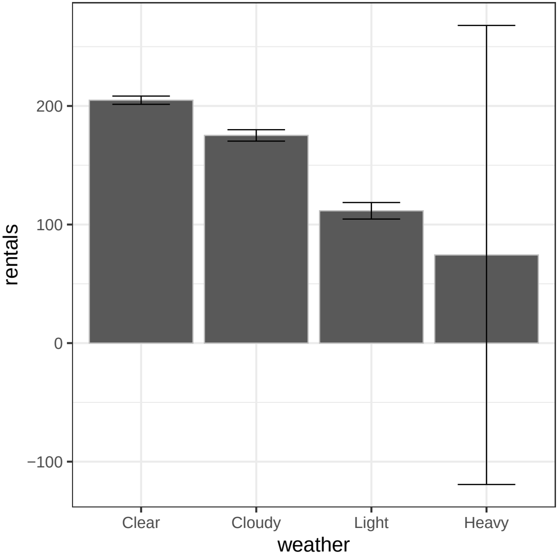


Bike example



Standard errors



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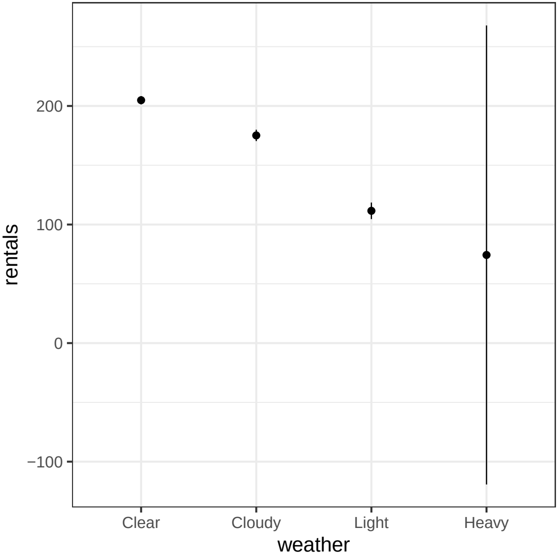

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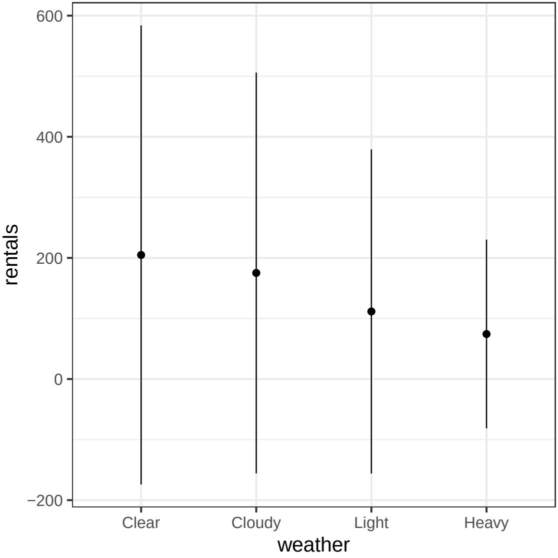
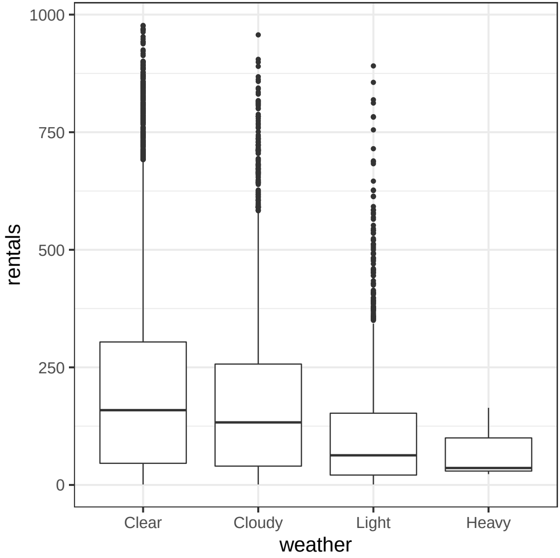


Data shape



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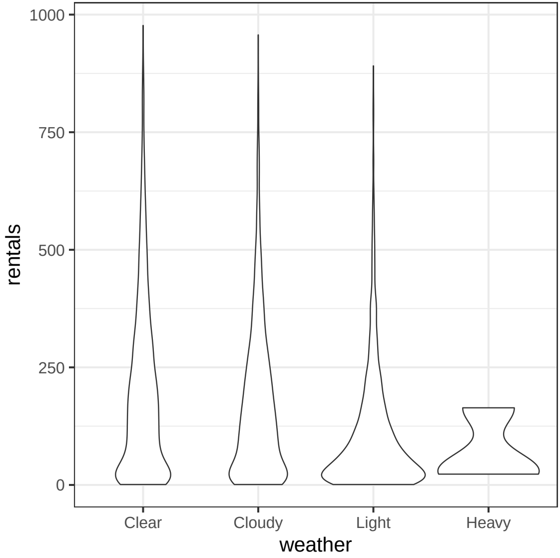

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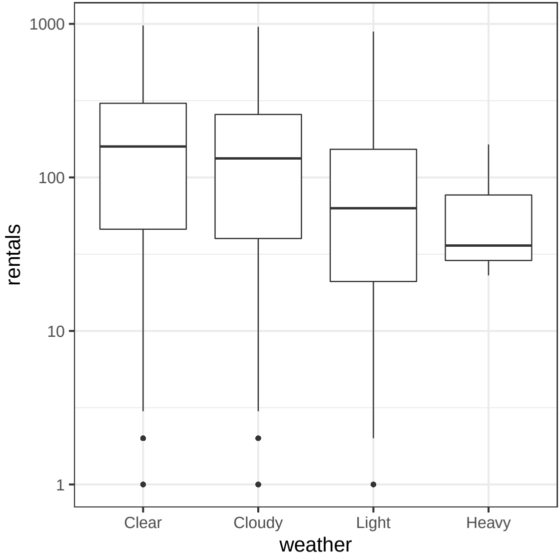

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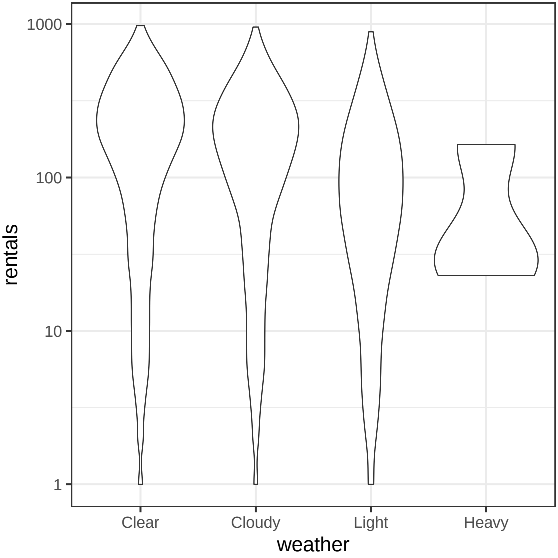
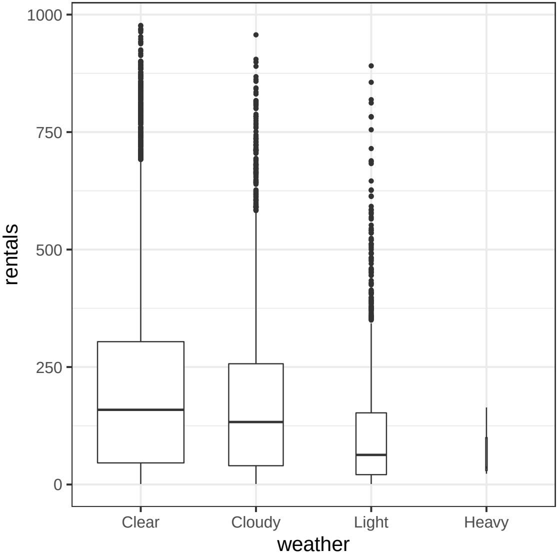


Data shape and weight



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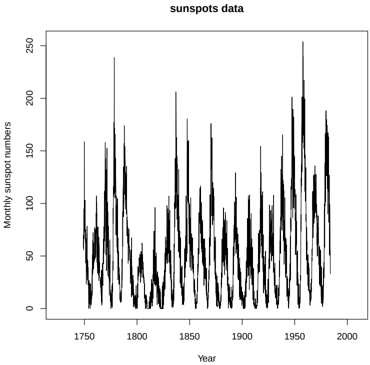
Sunspots


sunspots data
Monthly sunspot numbers
0
50
100
150
200
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1750
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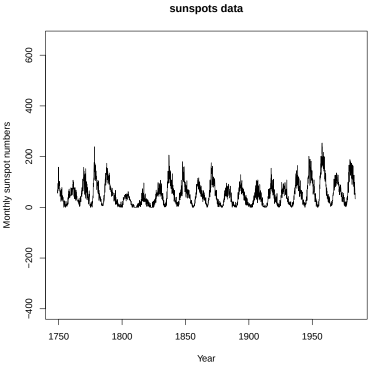
Year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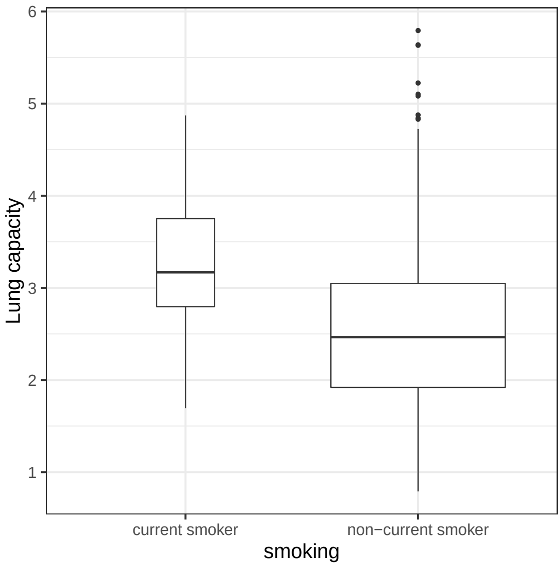
Smoking data



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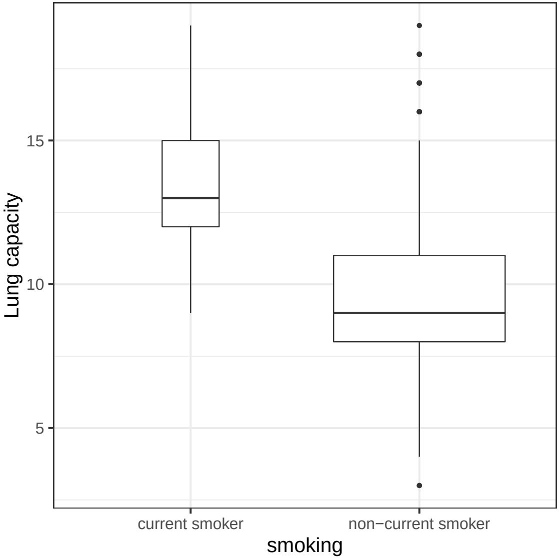

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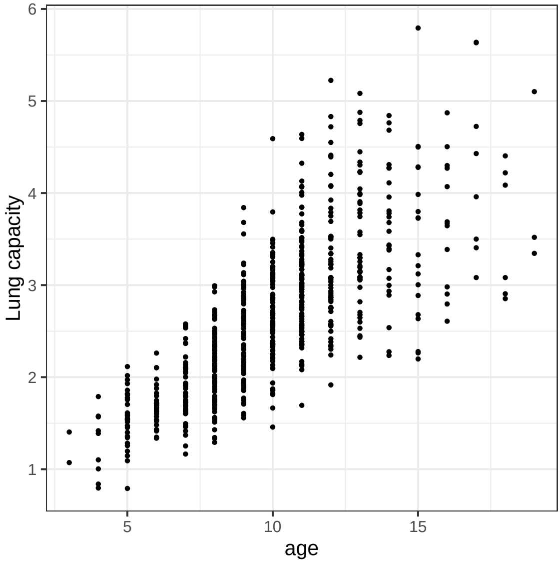
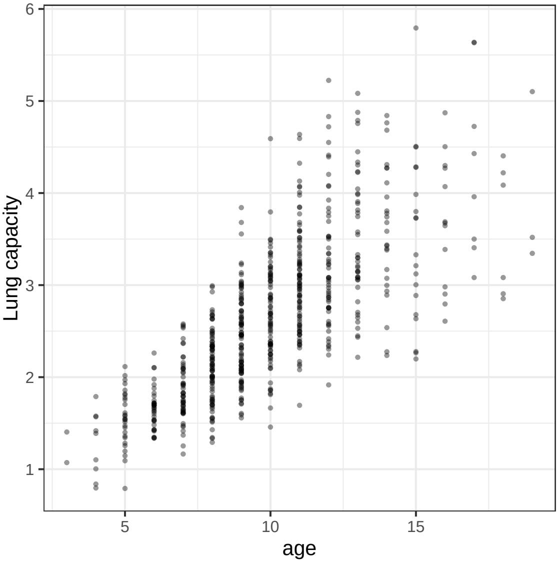


Seeing the density better



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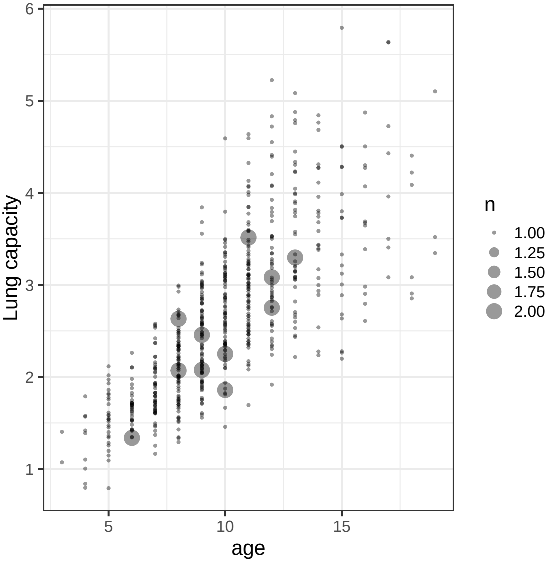
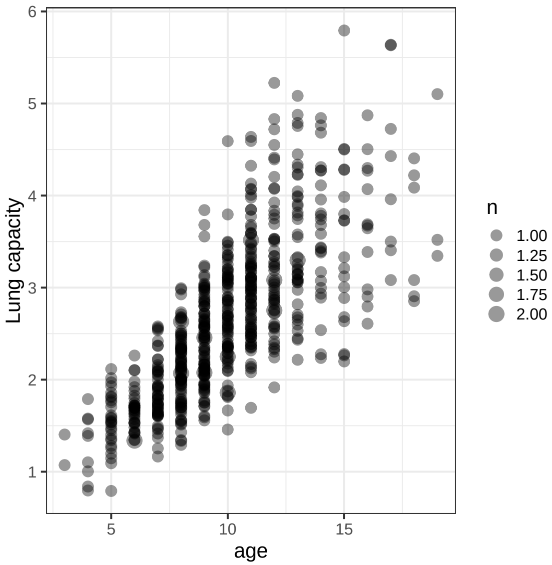
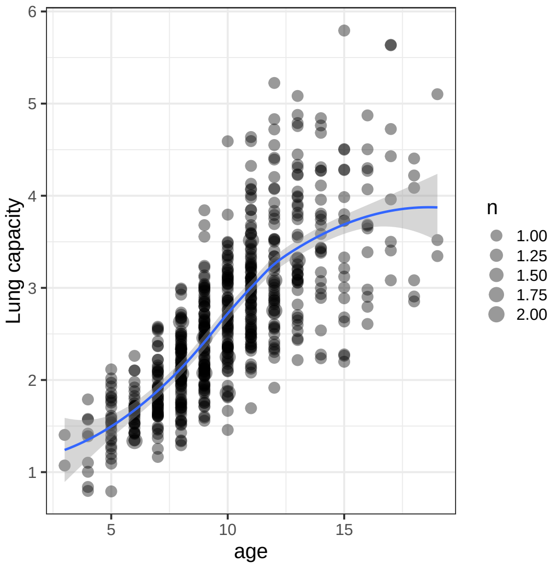


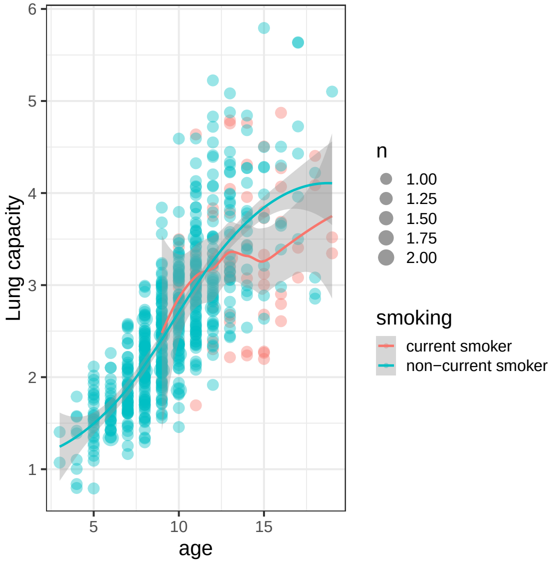
Maybe fixed



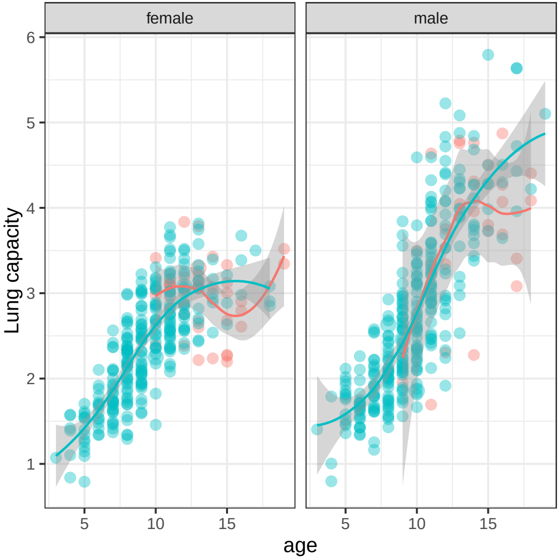
A loess trend line



Two loess trend lines



Many loess trend lines



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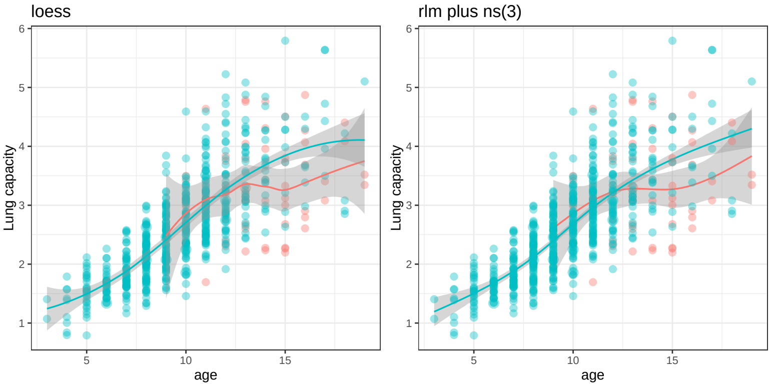
Fitting comparison



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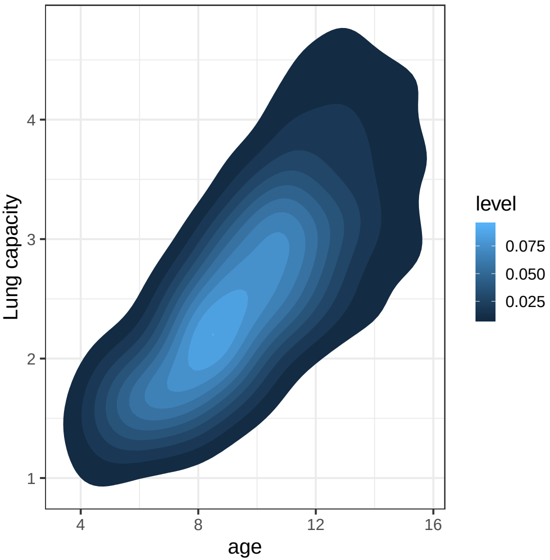

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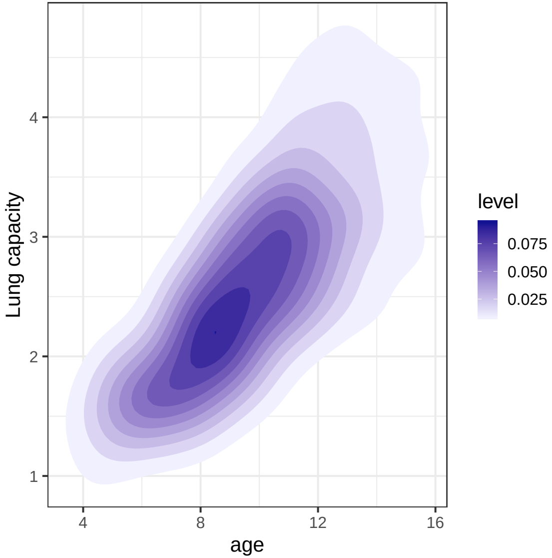

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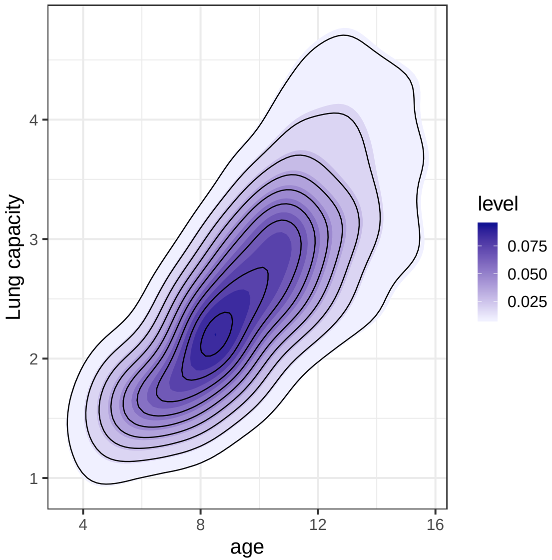

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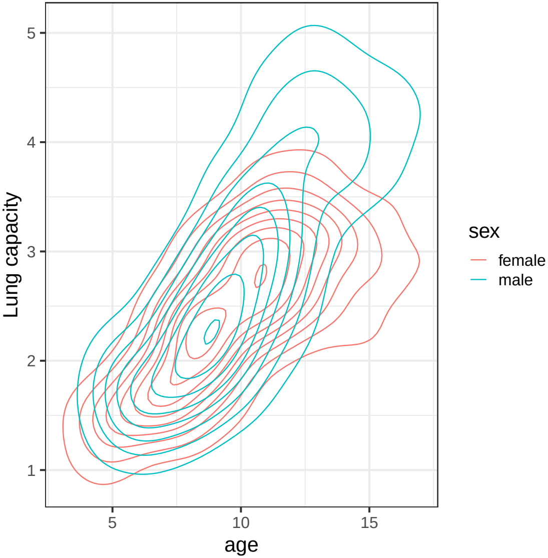

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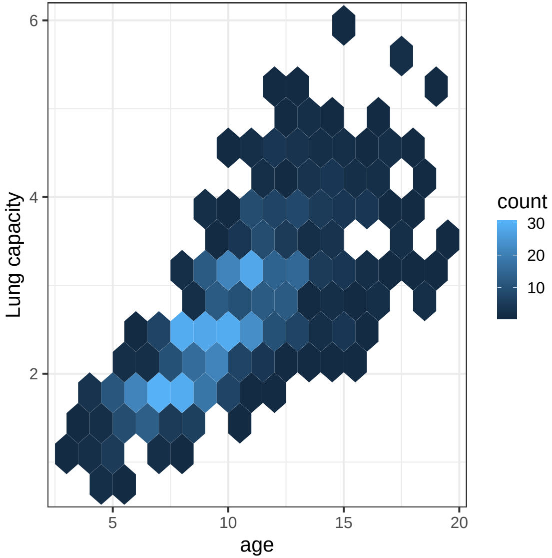

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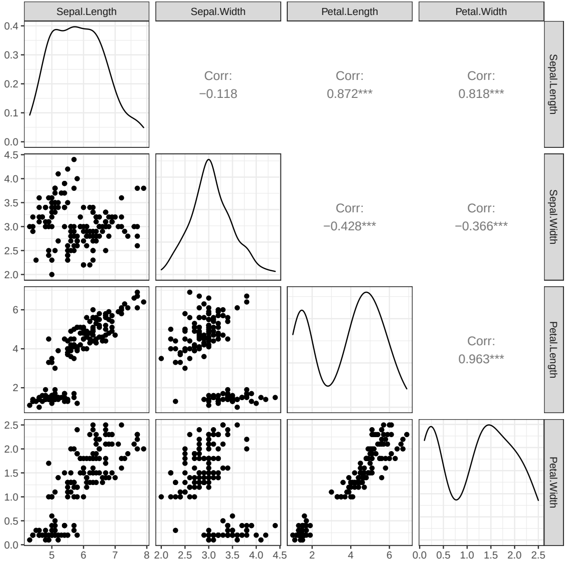
Pairs example



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