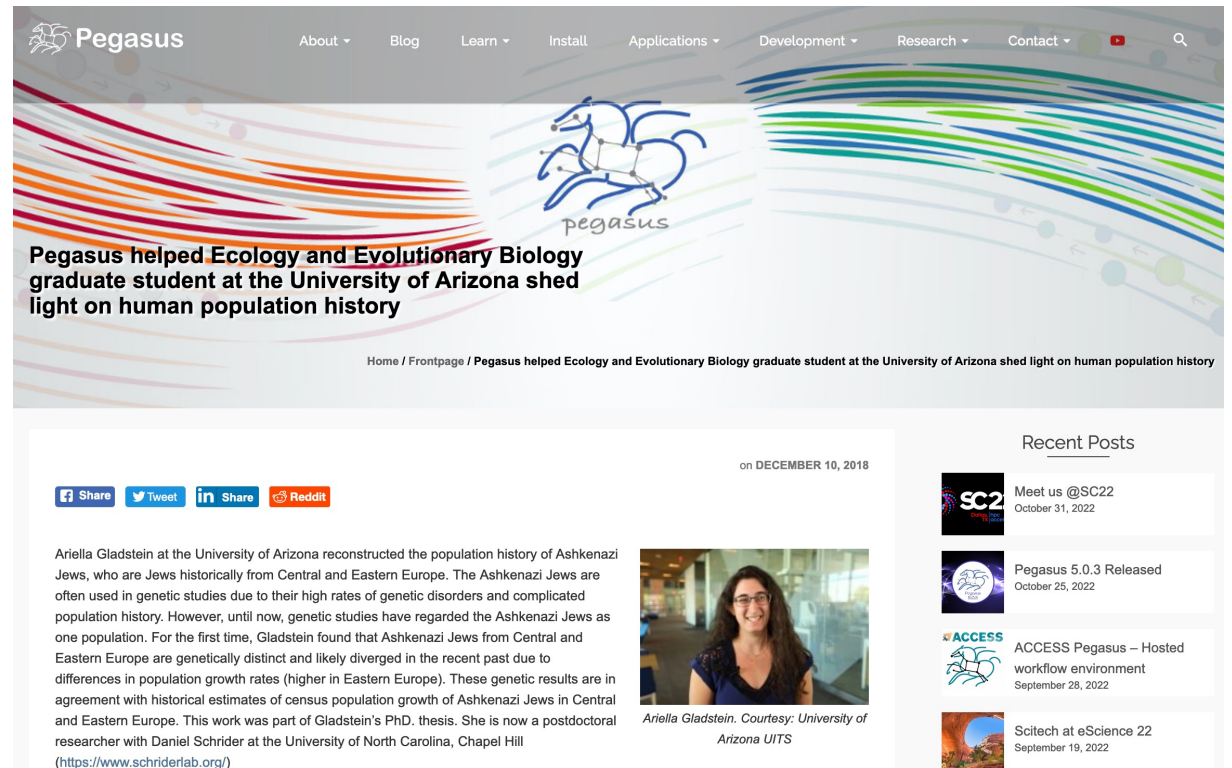# I Am Not an RSE, but I'm a Believer. Here's Why:

By Blake Joyce
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We run an HPC, a research cloud, and a K8s platform

- A number of jobs per day fail because of code/compute mismatch
- I suspect that our 'need' for larger systems is actually a need for more efficient/stable/reliable code
- We're working through a year's worth of SLURM efficiency data to determine the frequency of failed jobs and lost CPU/GPU hours
- Also want to identify researchers to help/notify this is happening to minimize frustration

- Ariella was genetics PhD trying to run 10+ million simulations
- Legacy code comparing genetics for SNPs
- Code compared using A, T, G, C's
- Julian changed it to be a bitwise comparison of 0/1 for ab/presence of SNPs
- Speed up of 30,000x +