

Basic ML with Julia and Azure



Getting Ready

- [Julia installation](#)
- [Anaconda](#) and [Julia kernel](#) installation
- [Azure](#) student offer

What is Julia?

- High performance dynamically typed language
- WAY faster than python (almost as fast as C)
- Designed for concurrent, parallel, and distributed computing
- Can directly call C libraries
- [Open source!!!](#)

The screenshot shows the GitHub repository for JuliaLang. At the top, it displays the repository name "JuliaLang / julia" and statistics: 892 Watchers, 18,979 Stars, and 3,087 Forks. Below this, there are navigation tabs for "Code", "Issues (2,389)", "Pull requests (634)", and "Insights". The main content area features the repository description: "The Julia Language: A fresh approach to technical computing." followed by the URL "https://julialang.org/". Below the description are several topic tags: "julia", "julia-language", "programming-language", "scientific-computing", "high-performance-computing", "numerical-computation", and "machine-learning". A horizontal bar displays repository statistics: 43,734 commits, 653 branches, 67 releases, 781 contributors, and a "View license" link. Below this bar are buttons for "Branch: master", "New pull request", "Create new file", "Upload files", "Find file", and a prominent green "Clone or download" button. At the bottom, a commit message is visible: "mbauman and JeffBezanson `get(A::AbstractArray, (), default)` should get `A[]` (#30270)" with the text "Latest commit 1875947 29 minutes ago".

Why Julia?

- Lots of easy to use libraries
- It's basically executable math

```
julia> area(r) = π * r^2
area (generic function with 1 method)

julia> area(3)
28.274333882308138
```

Time to try it out

Moving to the Cloud

Moving to the Cloud

Why?

- Don't have to have your computer on 24/7
- MORE POWER

Moving to the Cloud

Why?

- Don't have to have your computer on 24/7
- MORE POWER

Which Service?

- AWS, Google Cloud, and Azure should all work fine
 - All should give you free credits to start too!
- Azure has a [data science image](#) with everything we need already installed

To the Cloud!